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APPENDIX A

Coating System, Surface Preparation and Application Data

Information for each of the ten (10) coating systems included in the study is provided within this Appendix and is organized as follows:

Manufacturer Published Technical Data
Product Material Safety Data Sheets
Test Panel Surface Anchor Profile Replica Tape Results
Dry Film Thickness Measurements

Summary information is provided below.

Surface Preparation, Anchor Profile			
System Number	Surface Profile mils, average	System Film Thickness mils, average	Coats Applied Total
1	1.9	15.9	1
2	2.5	15.9	4
3	2.5	8.7	2
4	2.3	14.8	2
5	2.2	12.3	2
6	3.4	23.7	1
7	3.7	23.8	2
8	3.6	10.4	3
9	2.3	14.0	2
10	2.5	18.7	2

System #1 was prepared by the manufacturer and included abrasive blast cleaning with #2 blast sand, 20 mesh.

System #6, #7, and #8 were prepared and coated by Mr. D. Murrell of Vesca Plastics, identified by the manufacturer as an approved application of the aluminum metal powder and plastic powder coatings. Surface preparation employed 10/20 silica sand abrasive for metal panels and a five "sugar sand" for CPVC Plastic.

Abrasive blast cleaning of test panels conducted by KTA-Tator, Inc. employed aluminum oxide, 24 mesh to achieve a surface profile of approximately 2.0 - 2.5 mils. Coating application employed conventional spray except for System #10 which was brush applied. Application included overcoating aluminum powder, thermally applied by Vesca Plastics with the epoxy topcoat of System #8.

Abrasive blast profile, as measured, found the following for the substrates employed.

Substrate	Average Profile, mils
Aluminum	3.3
Stainless Steel	2.5
CPVC	1.5
Coupled Panel-Aluminum	3.2
Coupled Panel-Stainless Steel	2.3

Profile depth in aluminum is associated with relative softness of the substrate. CPVC panels were "brushed" to obtain a minimum profile of 1 mil based upon manufacturer recommendations. In general, control of surface profile was less consistent when performed by outside applicators.

System #1 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mld)	Vol. Solids %	Abrasive used	Appl Equip
Plastic Flamecoat PF112 Ethylene methacrylic acid	SP-6	2-3	1	15	100%	Sand	Flamecoat

Panel Numbers SS=1-22 Alum= 23-44 Coupled= 45-58 CPVC=59-76

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	1		17.3	20.4	18.1	19.8	19.1	18.9	18.9
SS	2		13.9	11.2	13.7	13.0	15.5	11.9	13.2
SS	3		17.7	19.7	17.8	19.5	18.1	20.8	18.9
SS	4		13.7	11.7	11.7	12.7	12.0	11.2	12.2
SS	5		16.7	18.1	15.2	16.6	15.1	18.3	16.7
SS	6		14.7	17.0	14.5	17.1	15.0	16.9	15.9
SS	7		14.1	13.3	13.1	13.1	12.4	13.2	13.2
SS	8		19.3	19.6	19.4	20.1	18.9	20.6	19.7
SS	9		13.8	19.5	14.6	17.8	14.1	19.5	16.6
SS	10		19.6	21.4	19.5	20.3	18.0	20.3	19.9
SS	11		14.9	17.5	14.7	16.6	12.9	16.9	15.6
SS	12		11.7	11.2	11.1	12.2	13.1	12.7	12.0
SS	13		18.5	19.0	20.2	17.2	19.2	18.3	18.7
SS	14		16.3	15.5	15.5	15.3	16.3	16.2	15.9
SS	15		15.2	19.8	17.9	18.0	18.8	19.2	18.2
SS	16		15.1	17.5	16.3	21.0	16.4	17.7	17.3
SS	17		17.4	17.4	14.0	19.0	16.7	17.9	17.1
SS	18		14.7	19.7	15.3	16.7	16.6	17.6	16.8
SS	19		15.6	15.9	14.6	15.3	15.2	13.3	15.0
SS	20		14.6	20.2	14.6	21.4	16.2	21.3	18.1
SS	21		15.5	10.1	16.2	12.7	15.1	11.7	13.6
SS	22	2.5*	17.3	13.3	18.0	14.1	17.7	13.7	15.7
ALUM	23		15.0	13.3	13.8	14.4	14.7	14.3	14.3
ALUM	24		18.9	24.1	18.6	23.4	20.7	24.0	21.6
ALUM	25		15.8	17.4	15.0	15.7	16.2	14.6	15.8
ALUM	26		16.8	15.6	18.1	16.1	17.3	17.6	16.9
ALUM	27		12.6	17.2	14.6	16.9	13.2	16.9	15.2
ALUM	28		14.0	13.6	16.0	13.0	14.0	13.4	14.0
ALUM	29		14.0	18.7	14.8	15.3	14.3	17.8	15.8
ALUM	30		10.1	12.4	10.7	13.8	9.2	14.1	11.7
ALUM	31		15.0	12.4	16.5	10.2	15.3	10.7	13.4
ALUM	32		12.6	13.6	13.8	12.9	13.4	13.4	13.3
ALUM	33		9.7	12.2	11.0	12.0	10.6	12.0	11.3
ALUM	34		11.4	13.4	11.1	11.0	12.0	11.3	11.7
ALUM	35		12.9	9.5	13.1	10.2	13.0	11.2	11.7
ALUM	36		13.6	18.7	12.7	17.2	13.5	18.4	15.7
ALUM	37		9.9	8.6	10.7	8.2	9.7	8.0	9.2
ALUM	38		12.2	12.2	12.9	12.1	13.0	12.3	12.5
ALUM	41		17.8	17.9	16.9	17.6	17.6	17.8	17.6
ALUM	42		14.9	9.4	16.3	10.0	13.5	8.7	12.1
ALUM	43		9.3	14.2	12.0	12.7	10.6	14.2	12.2
ALUM	44	2.6*	11.8	13.1	12.8	11.8	13.1	12.1	12.5
SS CPL	45		17.1	19.1	15.5	18.8	16.5	17.5	17.4
AL CPL	45		13.3	16.2	15.0	16.6	13.5	16.6	15.2
SS CPL	46		14.7	18.3	14.7	18.4	14.5	17.5	16.4

AL CPL	46		13.4	13.4	14.3	15.7	12.2	13.4	13.7
SS CPL	47		17.9	19.4	17.7	18.5	16.7	21.7	18.7
AL CPL	47		19.1	23.1	18.8	23.1	19.8	23.0	21.2
SS CPL	48		15.8	20.1	16.0	18.0	17.7	19.5	17.9
AL CPL	48		13.8	21.1	15.5	19.7	17.5	20.0	17.9
SS CPL	49		12.6	19.9	14.8	19.3	13.2	20.5	16.7
AL CPL	49		13.3	17.7	13.2	15.8	16.3	17.8	15.7
SS CPL	50		15.0	15.6	15.4	16.3	13.9	16.7	15.5
AL CPL	50		13.9	15.8	14.7	14.9	14.4	17.5	15.2
SS CPL	51		18.5	20.6	18.0	17.4	16.5	19.9	18.5
AL CPL	51		15.0	21.5	12.4	23.4	12.3	23.9	18.1
SS CPL	52		14.4	18.1	14.3	20.9	14.2	19.8	17.0
AL CPL	52		11.7	18.0	11.7	17.8	12.1	17.2	14.8
SS CPL	53		17.9	22.7	15.7	23.5	16.6	23.1	19.9
AL CPL	53		15.1	21.6	13.0	20.9	14.1	21.8	17.8
SS CPL	54		16.0	18.6	18.1	20.3	15.3	18.9	17.9
AL CPL	54		12.4	18.3	13.5	17.4	12.9	17.5	15.3
SS CPL	55		12.6	18.7	12.7	17.8	13.3	18.4	15.6
AL CPL	55		13.9	18.0	12.7	17.5	15.2	17.1	15.7
SS CPL	56		17.3	19.0	15.7	18.2	16.6	21.2	18.0
AL CPL	56		15.2	20.8	15.9	20.7	13.9	21.7	18.0
SS CPL	57		15.6	17.8	18.9	20.1	17.5	18.3	18.0
AL CPL	57		11.6	18.7	13.1	17.7	13.2	20.5	15.8
SS CPL	58		15.5	19.7	16.1	20.0	14.5	19.3	17.5
AL CPL	58		16.8	21.7	17.5	21.4	18.0	20.2	19.3
Average			14.8	17.0	15.0	16.8	15.0	17.0	15.9
CPVC		.05*	Panels warp, not determined						
Adh	77		23.5	23.4	24.7	23.6	24.6	22.8	23.8
Adh	78		19.8	18.9	21.9	17.7	21.3	18.4	19.7
Tabor	79		22.9	24.1	25.3	24.0	25.0	23.7	24.2
Tabor	80		25.4	23.8	23.1	23.9	24.2	24.1	23.8
Impact	81		15.6	15.1	15.4	14.6	15.7	14.5	15.2
Impact	82		19.2	18.7	18.8	17.9	20.0	18.8	18.9

*All Surface Profile Data not located, panels prepared in conjunction with all others..judgement is that values are comperable: ss=2.5, Al=2.6, Cpvc=0.5 based on available data.



**PLASTIC
FLAMECOAT®
SYSTEMS**

PRODUCT: PF112

TYPE:
Ionomer

DESCRIPTION:
Plastic FLAMECOAT's PF112 is a proprietary blend of material utilizing DuPont's Surlyn® as a base component, providing a one-coat thermoplastic coating system that is durable, UV stable, flexible, repairable, convenient to apply and environmentally safe.

USE:
Plastic FLAMECOAT's PF112 is an excellent coating for all types of applications where conventional paints, coatings or linings are not doing the job due to moisture, acid or caustic conditions; abrasion, impact or flexing problems; weather conditions or environmental considerations.

TYPICAL APPLICATION:
PF112 is especially appropriate in extremely abrasive environments and where high impact resistance is required such as:
•Transfer chutes
•Vacuum systems
•High abrasive impact areas

CURRENT MARKETS:
•Chemical Plants
•Refineries
•Pulp and Paper Mills
•Food Processing Plants
•Manufacturing/Assembly Plants
•Mining
•Power Plant
•Water/Waste Water Treatment
•Fabrication Shops
•Road and Bridge Maintenance
•Municipalities
•Marine Uses
•Farm and Agriculture
•Amusement Parks

LIMITATIONS:
Temperature Range: -60°F to 135°F
Not for Hydrocarbon Immersion Service
Requires proper surface preparation and application technique

RESISTANCE:
Acids
Alkalies
Humidity
Salts
Ammonia
Weather
Solvents
Abrasion

Excellent
Excellent
Excellent
Excellent
Excellent
Fair
Excellent
Excellent

VOLATILE ORGANIC COMPOUNDS:
None. Plastic FLAMECOAT is a solvent free, 100% solids coating.

TYPICAL PROPERTIES:

Melt Index, g/10 min	ASTM D-1238	14.0
Density, g/cm ³	D-792	.934
Tensile Strength MPa (psi)	D-638 ^a	22.1(3200)
Elongation, %	D-638 ^a	460
Flexural Modulus, MPa (psi) 23°C (73°F)	D-790	190(2800)
Hardness, Shore D	D-2240	62
Vicat Softening Temperature °C (°F)	D-1525 Rate B	61(142)
Notched Izod J/m (ft-lb/in)	D-256	No Break
Tensile Impact, kJ/m ² (ft-lb/in ²) 23°C (73°F) -40°C (-40°F)	D-1822S	760(360) 640(305)

APPEARANCE:
Medium gloss; textured surface.

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable and are intended for use by persons having skill and know-how at their own discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

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PLASTIC
FLAMECOAT[®]
SYSTEMS

Technical Data

COLORS:

Standard - white, black, metallic gray, dark gray, light gray, dark blue, light blue, green, dark red, dark brown, beige, medium green, clear

OSHA Safety - red, yellow, orange, green

Custom Colors Available - 1,000 lbs. or more

APPLICATION INSTRUCTIONS:

Plastic FLAMECOAT[®] can be applied directly over metals prepared with an SP-6 Commercial blast with a 2 to 3 mil profile using a clean blast media. It is not for application over old coatings or newly galvanized surfaces.

ACTIVATION/POT LIFE/REDUCTION:
None Required

STORAGE CONDITION:
Store in a dry area.

APPLICATION CONDITIONS:

Preheat substrate to 170°F to 190°F. Substrate must be dry. Preheating usually draws moisture from the substrate.

There are no dew point, humidity or temperature restrictions.

SUGGESTED FILM BUILD:

8 to 12 mils dry (single coat)

COVERAGE:

10 sq.ft. per pound at 10 mils.

CURE TIMES:

None. Material safe to handle as soon as substrate is cool enough to handle. A water quench can be used to accelerate cooling time.

APPLICATION EQUIPMENT:

Use only Plastic FLAMECOAT[®] application units.

SHELF LIFE:

Unlimited

PERFORMANCE DATA:

SALT FOG: No migration (1000 hrs +)

TABER ABRASION:

CS10 1000 g/1000 cyc 40 mg loss

CS17 1000 g/1000 cyc 60 mg loss

ELCOMETER ADHESION TEST:

> 1000 psi

PACKAGING:

25 pound buckets or 800 pound Gaylords

APPROVALS:

FDA for food contact. 5 colors - Red (A104), Green (B101), White (G102), Blue (C103), Black (H103)

NOTE: FDA Compliance only guaranteed if "FDA APPROVED" appears on the powder container label.

SAFETY:

Fumes evolved during application may contain:

Monomers used in the manufacture of the resins, including methacrylic acid.

Pyrolysis products consisting of low molecular weight hydrocarbons.

Products of incomplete combustion include carbon monoxide and organic acids, aldehydes, and alcohols.

Ventilation hoods are recommended to prevent fumes from being discharged into and accumulating in work areas. Refer to ANSI Standard Z9.2 for more information.

Dust: Considered as an inert or nuisance dust.

WASTE DISPOSAL: NON-HAZARDOUS

Disposal presents no special problems. Any disposal procedure must comply with all local, state, and federal regulations.

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable and are intended for use by persons having skill and knowledge in the proper discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

Copyright 1981 PLS, Inc. The PLASTIC FLAMECOAT[®] SYSTEM is protected by several U.S. Patent and patent applications.

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SECTION VII. EMERGENCY AND FIRST AID PROCEDURES

INGESTION (swallowing): Not a probable route of exposure.

INHALATION (breathing): If exposed to fumes from overheating or from combustion, move to fresh air.

SKIN CONTACT: If molten polymer contacts the skin, cool rapidly with cold water, do not attempt to peel polymer from skin. Obtain medical attention for thermal burns.

EYE CONTACT: Flush with water.

SECTION VIII. DISPOSAL PROCEDURES

AQUATIC TOXICITY: Insoluble in water. Toxicity not known. Do not discharge to streams, ponds or lakes.

SPILL, LEAK,

OR RELEASE: Sweep up to prevent slipping hazard.

WASTE DISPOSAL: Landfill preferred. Incineration will require excess oxygen. Disposal must be in compliance with federal, state, and local regulations.

SECTION IX. PROTECTION INFORMATION

VENTILATION: Local exhaust recommended for hot melt applications.

PERSONAL PROTECTIVE EQUIPMENT:

EYE: Glasses

GLOVES: Protective gloves when handling hot polymer.

RESPIRATOR: Not required under normal conditions.

OTHER: Long sleeved cotton shirt and long pants to prevent skin contact with hot molten polymer.

SECTION X. SPECIAL PRECAUTIONS

During heat sealing and hot wire cutting, polymer adhering to wire or sealing bar can pyrolyze and evolve fumes. Adequate ventilation required.

SECTION XI. STORAGE CONDITIONS

Cool, dry storage.

SECTION XII. SUPPLIER NOTIFICATION: SECTION 313

The zinc partial metal salt types of PF112 contain the following chemical subject to the reporting requirement of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40CFR 372:

100% of a zinc compound (CAS number not applicable) which contains up to about 5% zinc.

The above information is based on data which Plastic FLAMECOAT® Systems, Inc. is aware of and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may not be familiar, Plastic FLAMECOAT® Systems, Inc. does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

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MATERIAL SAFETY DATA SHEET
PF112

3400 W. Seventh
Big Spring, Texas 79720
(915) 263-5263

Product: FLAMECOAT® PF112
Date: October 9, 1992
Revision:

SECTION I. DEPARTMENT OF TRANSPORTATION

HAZARD CLASS: Not Regulated
SHIPPING NAME: N/A

SECTION II. INGREDIENTS AND HAZARDS

MATERIAL	CAS	%	OSHA PEL	TLV(TWA)
Ethylene Methacrylic Acid Terpolymer, Partial Metal Salt	N/A	100	N/E	N/E
Residual Methacrylic Acid	79-41-4	.05 max	20ppm	20ppm

N/E - No value established

Is any chemical present in this product at a concentration of .1% or more classified as a carcinogen by IARC, NTP, or OSHA? Yes/No NO

SECTION III. PHYSICAL DATA

MELTING POINT: 80°-100°C
% VOLATILE: Nil
APPEARANCE: Powder
ODOR: Mild Methacrylic Acid
SOLUBILITY IN WATER: Insoluble
FORM: Solid
COLOR: Natural

SECTION IV. FIRE AND EXPLOSION DATA

FLASH POINT: N/A
FLASH IGNITION TEMPERATURE: 350° ± 15°C
METHOD: ASTM D1929
FIRE AND EXPLOSION HAZARDS: No unusual hazards.
EXTINGUISHING MEDIA: Water, carbon dioxide, foam, dry chemicals.
SPECIAL FIRE FIGHTING INSTRUCTIONS: Use self-contained breathing apparatus if exposed to fumes.

SECTION V. HAZARDOUS REACTIVITY

CONDITIONS TO AVOID: Temperatures over 325°C
MATERIALS TO AVOID: None known
HAZARDOUS COMBUSTION AND
DECOMPOSITION PRODUCTS: Carbon Monoxide, Acrolein, Aldehydes, Hydrocarbons,
Methacrylic Acid, Alcohols, and Zinc Oxides
POLYMERIZATION: Will not occur.

SECTION VI. HEALTH HAZARD INFORMATION

ACUTE EFFECTS OF EXPOSURE:

INGESTION (swallowing): Low toxicity. Not a probable route of exposure.
INHALATION (breathing): Vapors during processing may be irritating to the upper respiratory tract if ventilation is inadequate.

SKIN CONTACT: Molten polymer will cause thermal burns.

EYE CONTACT: Mechanical irritation.

CHRONIC EFFECTS OF EXPOSURE: None known.

Manufacturer's Product Data and Recommendations						
Manufacturer	Profile	Coats	DFT, ea.	Vol. Solids	Abrasive	Appl
Plastic Flamecoat	mils	#	(mid)	%	used	Equip
PF112 Ethylene methacrylic acid	2-3	1	15	100%	Sand	Flamecoat

Panel# SS=1-22 Alum= 23-44 Coupled= 45-58 CPVC=59-76

Panel #/Tag #		1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	1	17.3	20.4	18.1	19.8	19.1	18.9	18.9
SS	2	13.9	11.2	13.7	13.0	15.5	11.9	13.2
SS	3	17.7	19.7	17.8	19.5	18.1	20.8	18.9
SS	4	13.7	11.7	11.7	12.7	12.0	11.2	12.2
SS	5	16.7	18.1	15.2	16.6	15.1	18.3	16.7
SS	6	14.7	17.0	14.5	17.1	15.0	16.9	15.9
SS	7	14.1	13.3	13.1	13.1	12.4	13.2	13.2
SS	8	19.3	19.6	19.4	20.1	18.9	20.6	19.7
SS	9	13.8	19.5	14.6	17.8	14.1	19.5	16.6
SS	10	19.6	21.4	19.5	20.3	18.0	20.3	19.9
SS	11	14.9	17.5	14.7	16.6	12.9	16.9	15.6
SS	12	11.7	11.2	11.1	12.2	13.1	12.7	12.0
SS	13	18.5	19.0	20.2	17.2	19.2	18.3	18.7
SS	14	16.3	15.5	15.5	15.3	16.3	16.2	15.9
SS	15	15.2	19.8	17.9	18.0	18.8	19.2	18.2
SS	16	15.1	17.5	16.3	21.0	16.4	17.7	17.3
SS	17	17.4	17.4	14.0	19.0	16.7	17.9	17.1
SS	18	14.7	19.7	15.3	16.7	16.6	17.6	16.8
SS	19	15.6	15.9	14.6	15.3	15.2	13.3	15.0
SS	20	14.6	20.2	14.6	21.4	16.2	21.3	18.1
SS	21	15.5	10.1	16.2	12.7	15.1	11.7	13.6
SS	22	17.3	13.3	18.0	14.1	17.7	13.7	15.7
ALUM	23	15.0	13.3	13.8	14.4	14.7	14.3	14.3
ALUM	24	18.9	24.1	18.6	23.4	20.7	24.0	21.6
ALUM	25	15.8	17.4	15.0	15.7	16.2	14.6	15.8
ALUM	26	16.8	15.6	18.1	16.1	17.3	17.6	16.9
ALUM	27	12.6	17.2	14.6	16.9	13.2	16.9	15.2
ALUM	28	14.0	13.6	16.0	13.0	14.0	13.4	14.0
ALUM	29	14.0	18.7	14.8	15.3	14.3	17.8	15.8
ALUM	30	10.1	12.4	10.7	13.8	9.2	14.1	11.7
ALUM	31	15.0	12.4	16.5	10.2	15.3	10.7	13.4
ALUM	32	12.6	13.6	13.8	12.9	13.4	13.4	13.3
ALUM	33	9.7	12.2	11.0	12.0	10.6	12.0	11.3
ALUM	34	11.4	13.4	11.1	11.0	12.0	11.3	11.7
ALUM	35	12.9	9.5	13.1	10.2	13.0	11.2	11.7
ALUM	36	13.6	18.7	12.7	17.2	13.5	18.4	15.7
ALUM	37	9.9	8.6	10.7	8.2	9.7	8.0	9.2
ALUM	38	12.2	12.2	12.9	12.1	13.0	12.3	12.5
ALUM	41	17.8	17.9	16.9	17.6	17.6	17.8	17.6
ALUM	42	14.9	9.4	16.3	10.0	13.5	18.7	12.1
ALUM	43	9.3	14.2	12.0	12.7	10.6	14.2	12.2
ALUM	44	11.8	13.1	12.8	11.8	13.1	12.1	12.5
SS CPL	45	17.1	19.1	15.5	18.8	16.5	17.5	17.4
AL CPL	45	13.3	16.2	15.0	16.6	13.5	16.6	15.2
SS CPL	46	14.7	16.3	14.7	18.4	14.5	17.5	16.4

AL CPL	46	13.4	13.4	14.3	15.7	12.2	13.4	13.7
SS CPL	47	17.9	19.4	17.7	18.5	16.7	21.7	18.7
AL CPL	47	19.1	23.1	18.8	23.1	19.8	23.0	21.2
SS CPL	48	15.8	20.1	16.0	18.0	17.7	19.5	17.9
AL CPL	48	13.8	21.1	15.5	19.7	17.5	20.0	17.9
SS CPL	49	12.6	19.9	14.8	19.3	13.2	20.5	16.7
AL CPL	49	13.3	17.7	13.2	15.8	16.3	17.8	15.7
SS CPL	50	15.0	15.6	15.4	16.3	13.9	16.7	15.5
AL CPL	50	13.9	15.8	14.7	14.9	14.4	17.5	15.2
SS CPL	51	18.5	20.6	18.0	17.4	16.5	19.9	18.5
AL CPL	51	15.0	21.5	12.4	23.4	12.3	23.9	18.1
SS CPL	52	14.4	18.1	14.3	20.9	14.2	19.8	17.0
AL CPL	52	11.7	18.0	11.7	17.8	12.1	17.2	14.8
SS CPL	53	17.9	22.7	15.7	23.5	16.6	23.1	19.9
AL CPL	53	15.1	21.6	13.0	20.9	14.1	21.8	17.8
SS CPL	54	16.0	18.6	18.1	20.3	15.3	18.9	17.9
AL CPL	54	12.4	18.3	13.5	17.4	12.9	17.5	15.3
SS CPL	55	12.6	18.7	12.7	17.8	13.3	18.4	15.6
AL CPL	55	13.9	18.0	12.7	17.5	15.2	17.1	15.7
SS CPL	56	17.3	19.0	15.7	18.2	16.6	21.2	18.0
AL CPL	56	15.2	20.8	15.9	20.7	13.9	21.7	18.0
SS CPL	57	15.6	17.8	18.9	20.1	17.5	18.3	18.0
AL CPL	57	11.6	18.7	13.1	17.7	13.2	20.5	15.8
SS CPL	58	15.5	19.7	16.1	20.0	14.5	19.3	17.5
AL CPL	58	16.8	21.7	17.5	21.4	18.0	20.2	19.3
	Average	14.8	17.0	15.0	16.8	15.0	17.0	15.9
CPVC	Panels warp, not determined							
Adh	77	23.5	23.4	24.7	23.6	24.6	22.8	23.8
Adh	78	19.8	18.9	21.9	17.7	21.3	18.4	19.7
Tabor	79	22.9	24.1	25.3	24.0	25.0	23.7	24.2
Tabor	80	25.4	23.8	23.1	23.9	24.2	24.1	23.8
Impact	81	15.6	15.1	15.4	14.6	15.7	14.5	15.2
Impact	82	19.2	18.7	18.8	17.9	20.0	18.8	18.9

All Surface Profile Data not located, panels prepared in conjunction with all others..Judgement is that values/ are comparable: ss=2.5, Al=2.6 Cpvc=0.5 based on available data.

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)			
Batch Numbers (Record)	<i>none</i>		
Material Temperature/Potlife (Record)			
Correct Thinner/Amount (Record)			
Time of Mix (Record)			
Mix Ratio (Record)			
Induction Period (Record)			

APPLICATION

Ambient Conditions (Record)	DB: 74° WB: 64° RH: 58% DP: 59° ST:		
Applicator's Name (Record)	<i>Carig Dorsey</i>		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)			
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness			
Proper Pot Agitation			
Application Equipment (Record)	<i>Flame Applied</i>		
Time Application Complete (Record)			

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *Coating applied 238°F.*
original coat began blister when trying to
recoat repair system. When page was recorded
and all pinned due to significant amount of
heat.

Inspector: *C. Parle*
 Date: *8/1/94*
 Report No.
 Page *01*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT:

NASA

JOB NO:

Summary of Work Performed:

Doug Horton

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.	N/A		
Grease/Oil Removal (Record Solvent)	N/A		
Clean Dry Abrasive		✓	
Recycled Abrasive Test			
✓ Nozzle Air Pressure (Record)	120 psi ↓		
✓ Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

60° 56° 78% 54° 60° outside

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)	61°	58°	84%	58	61 * inside
✓ Profile (Record)	see attached				✓
Type and Size Abrasive (Record)	#2 Blast sand 20 mesh				
Dust and Abrasive Removal				✓	
Magnetic Base Reading (Record)		N/A		✓	

MIXING

✓ Mfg./Product Name (Record)	PF 112 G-101 (Nite)		
✓ Batch Numbers (Record)	Lot# 40211-1103C		
Material Temperature/Potlife (Record)	N/A		
Correct Thinner/Amount (Record)	N/A		
Time of Mix (Record)	N/A		
Mix Ratio (Record)	N/A		
Induction Period (Record)	N/A		

APPLICATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Applicator's Name (Record)	68°	58°	55%	51°	68°
Surface Prep. to Appl. (Record Time)	2.5 hrs.				
✓ Compressed Air Cleanliness				✓	
✓ Time Application Began (Record)	0930				
✓ Surrounding Air Cleanliness				✓	
Recoat Times Observed (Record Actual)	N/A				
Intercoat Cleanliness	N/A				
Proper Pot Agitation	fluidized bed @ 2-4 psi				
Application Equipment (Record)	PFS Powder pistol # PF-100				
Time Application Complete (Record)					

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables	15 mils	
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: Ray Baggett

Date: 3/23/94

Report No.

Page of

Summary of Work Performed:

JCB NO:

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfgr/Product Name (Record)			
Batch Numbers (Record)			
Material Temperature/Potlife (Record)			
Correct Thinner/Amount (Record)			
Time of Mix (Record)			
Mix Ratio (Record)			
Induction Period (Record)			

APPLICATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Applicator's Name (Record)					
Surface Prep. to Appl. (Record Time)					
Compressed Air Cleanliness					
Time Application Began (Record)					
Surrounding Air Cleanliness					
Recoat Times Observed (Record Actual)					
Intercoat Cleanliness					
Proper Pot Agitation					
Application Equipment (Record)					
Time Application Complete (Record)					

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector:

Date: / / 94

Report No.

Page of

PRESS-O-FILM™

No. 1-46

Mils. 2.6

Comp. In. 2.0

Testex, Inc.
Newark, DE 19715

X COARSE (1.5-4.5)

PRESS-O-FILM™

No. 2-58

Mils. 1.38

Comp. In. 2.0

Testex, Inc.
Newark, DE 19715

X COARSE (1.5-4.5)

PRESS-O-FILM™

No. 1-55

Mils. 2.48

Comp. In. 2.0

Testex, Inc.
Newark, DE 19715

X COARSE (1.5-4.5)

PRESS-O-FILM™

No. 2-52

Mils. 1.52

Comp. In. 2.0

Testex, Inc.
Newark, DE 19715

X COARSE (1.5-4.5)

GENERAL PAGE 15
OF POOR QUALITY

Panel #/Tag #	Surface Profile	Primer Coat			Top Coat		
		DFT	DFT	DFT	DFT	DFT	DFT
SS 1		17.3	20.4	18.1	19.8	19.1	18.9
2		13.9	11.2	13.7	13.0	15.5	11.9
3		17.7	19.7	17.8	19.5	18.1	20.8
4		13.7	11.7	11.7	12.7	12.0	11.2
5		16.7	18.1	15.2	16.6	15.1	18.3
6		14.7	17.0	14.5	17.1	15.0	16.9
7		14.1	13.3	13.1	13.1	12.4	13.2
8		19.3	19.6	19.4	20.1	18.9	20.6
9		13.8	19.5	14.6	17.8	14.1	19.5
10		19.6	21.4	19.5	20.3	18.0	20.3
11		14.9	17.5	14.7	16.6	12.9	16.9
12		11.7	11.2	11.1	12.2	13.1	12.7
13		18.5	19.0	20.2	17.2	19.2	18.3
14		16.3	15.5	15.5	15.3	16.3	16.2
15		15.2	19.8	17.9	18.0	18.8	19.2
16		15.1	17.5	16.3	21.0	16.4	17.7
17		17.4	17.4	14.0	19.0	16.7	17.9
18		14.7	19.7	15.3	16.7	16.6	17.6
19		15.6	15.9	14.6	15.3	15.2	13.3
20		21.3	16.2	21.4	14.6	20.2	14.6
21		15.5	10.1	16.2	12.7	15.1	11.7
SS 22		17.3	13.3	18.0	14.1	17.7	13.7
ALUM 23		15.0	13.3	13.8	14.4	14.7	14.3
24		18.9	24.1	18.6	23.4	20.7	24.0
25		15.8	17.4	15.0	15.7	16.2	14.6
26		16.8	15.6	18.1	16.1	17.3	17.6
27		12.6	17.2	14.6	16.9	13.2	16.9
28		14.0	13.6	16.0	13.0	14.0	13.4
29		14.0	18.7	14.8	15.3	14.3	17.8
30		10.1	12.4	10.7	13.8	9.2	14.1
31		15.0	12.4	16.5	10.2	15.3	10.7
32		12.6	13.6	13.8	12.9	13.4	13.4
33		9.7	12.2	11.0	12.0	10.6	12.0
34	1	11.4	13.4	11.1	11.0	12.0	11.3

AN
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	Panel #/Tag #	Surface Profile	Primer Coat			Top Coat		
			DFT	DFT	DFT	DFT	DFT	DFT
	AL 35		12.9	9.5	13.1	10.2	13.0	11.2
	36		13.6	18.7	12.7	17.2	13.5	18.4
	37		9.9	8.6	10.7	8.2	9.7	8.0
	38		12.3	13.0	12.1	12.9	12.2	12.2
	39							
	40							
AN	41		17.8	17.9	16.9	17.6	17.6	17.8
AN	42		14.9	9.4	16.3	10.0	13.5	8.7
AN	43		9.3	14.2	12.0	12.7	10.6	14.2
AN	AL 44		11.8	13.1	12.8	11.8	13.1	12.1
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	CPIC 59							
	60							
	61							
	62							
	63							
	64							
	65							
	66							
	67							
	68							

[illegible]

Manufacturer's Product Data and Recommendations							
System #2	Surface	Profile	Costs	DFT, ea.	Vol. Solids	Abrasive	Appl
Manufacturer	Prep	mils	#	(mil)	%	used	Equip
NSP Specialty Products							
NSP 120	SP-7	1	2	8 to 12	100%	Alum.	B,R,C,A
phenolic epoxy						Oxide (24)	
Mavor-Kelly (dist.)							

Panel Numbers SS=83-104

Alum=105-126

Coupled=127-140

CPVC=141-158

Panel #/Tag #	Surface	1F	2F	1F	2F	1F	2F	Average
	Profile	DFT	DFT	DFT	DFT	DFT	DFT	DFT
SS	83	2.4	14.6	21	14.4	20.2	14.7	17.4
SS	84		14.6	14	14.1	14.6	13.7	14.2
SS	85		15.8	15.9	14.8	16.4	14.9	15.7
SS	86		15.3	19.1	15.3	19	15.5	17.2
SS	87		16.3	14	15.6	14.3	16.5	14.3
SS	88	2.6	14.8	15.5	14.7	16.4	14.6	15.6
SS	89		13.1	14.4	13.4	15.5	13.1	14.4
SS	90		16	15.8	15	15.9	15.9	15.9
SS	91		17.4	21.1	17.5	21.7	17.4	22.5
SS	92		16.2	14.3	16.2	15.1	16.2	15.5
SS	93	2.5	15.3	13.5	15.8	14.5	15	14.6
SS	94		16.2	16.4	16.4	15.7	16.7	15.9
SS	95		17.4	17.4	18.3	18.1	18.3	17.5
SS	96		14.5	14.3	14.8	14.3	14.9	14.3
SS	97		18.6	16.7	19.6	16.7	18.8	17.2
SS	98	2.5	14.5	17.6	14.4	17.5	14.4	17.8
SS	99		15.8	15.5	14.8	14.7	15.1	14.7
SS	100		15.3	16.3	15.4	15.5	15.9	16.6
SS	101		14.4	15.2	15.4	16.1	15.2	15.5
SS	102		14.2	15.7	14.3	15.6	14.3	15.6
SS	103	2.3	13	15.2	13.1	15.7	13.6	15.1
SS	104		15.9	14.8	16.6	14.6	15.7	15.3
ALUM	105	2.5	15.4	13.7	16	14.3	15.7	13.5
ALUM	106		18.4	18.2	18.5	18.2	18.6	18.5
ALUM	107		13.4	16.3	13.9	16	13.9	16.1
ALUM	108		13.1	13.8	13.1	14.1	13.1	14.2
ALUM	109		14.6	18.2	14.2	18.2	14.3	17.9
ALUM	110	2.7	16.9	15	16.5	14.9	16.7	15.5
ALUM	111		16.2	15	16.4	14.9	16.5	15
ALUM	112	2.7	13.6	14.8	13.4	15.2	13.9	15.4
ALUM	113		14.2	16.9	14.4	16.9	14	16.6
ALUM	114		18.9	16.9	19.3	17.2	21.2	16.7
ALUM	115	2.5	18	18	18.1	17.8	18.3	18.7
ALUM	116	3.1	16.5	17	16.4	16.8	16.8	17
ALUM	117		16.1	13.9	16.3	13.8	16.3	13.5
ALUM	118		12.7	12.7	13.3	12.9	13.2	13
ALUM	119		16.9	15.3	17.3	15.6	17.3	16.9
ALUM	120	2.7	16.7	14.8	16.6	14.9	16.8	15.2
ALUM	121	3.0	17.1	15.7	17	16.2	17.2	15.8
ALUM	122		14.3	13.9	14.2	13.9	14.4	14
ALUM	123	3.0	12.8	14.3	14.2	16	14.1	16
ALUM	124		16.8	15.8	16.8	15.7	17.1	16.2
ALUM	125	2.7	20.5	14.4	15.4	15.7	13.4	16
ALUM	126		22.5	27	22.5	26	22.6	25
SS CPL	127	2.2	14.9	14.8	14.9	14.3	15	14.2
AL CPL	127	2.6	12	12.8	12.6	12.6	12.4	13.3
SS CPL	128		15.4	15	16.5	15.3	16.6	14.9
AL CPL	128		14.5	15.2	13.8	15.3	14.1	15.3
SS CPL	129		16.6	14.2	16.8	14.2	16.8	13.8
AL CPL	129	3.0	12.2	16.6	13.3	10.4	12.7	16.5
SS CPL	130		11.5	8.9	10.7	8.7	9.7	9.9
AL CPL	130		13.9	16.1	13.6	16.5	13.9	15.8
AL CPL	131		10.2	13.4	11.1	12.2	11.5	12.7

SS CPL	131		15.1	16.3	15.3	16.1	14.3	15.4	15.4
SS CPL	132	2.1	13.3	15.9	13.5	16.1	13.5	16	14.7
AL CPL	132	2.5	21.4	22	21.3	22.4	21.3	21.9	21.7
SS CPL	133		19.3	19.2	19.7	19.1	19	19	19.2
AL CPL	133		15.7	17	14.9	17.1	15.9	17.8	16.4
SS CPL	134		21.8	20.6	22	20.7	23	21	21.5
AL CPL	134		22	20.7	20.1	19.7	20.2	20.2	20.5
AL CPL	135		13.3	15.1	13.2	15.8	13	15.7	14.4
SS CPL	135		16.5	17.4	16.4	17.5	15.7	18.1	16.9
SS CPL	136		16.4	14.4	15.7	14.7	15.2	14.6	15.2
AL CPL	136		11.6	13.5	11.4	13.4	12.2	14.6	12.8
SS CPL	137	2.1	15.2	15.5	15.8	15	15	15	15.3
AL CPL	137	2.5	11.2	16	10.9	15.9	10.8	16.1	13.5
SS CPL	138		20.6	20.2	20.7	20	20.1	20.4	20.3
AL CPL	138		20.1	20.2	18.4	17.9	18.1	19.2	19.0
SS CPL	139		14.9	15.3	14.8	15.7	14.8	14.8	15.1
AL CPL	139		13.6	14.7	13.3	14.6	14.2	14.7	14.2
SS CPL	140		13.8	15.1	13.8	15.2	17.1	18.6	15.6
AL CPL	140		13.3	16.2	14	16.4	14.6	16.7	15.2
CPVC	141		153	154	27.5				13.8
CPVC	142		157	160	32.5				16.3
CPVC	143		159	160	33.5				16.8
CPVC	144		155	153	28				14.0
CPVC	145	1.2	162	160	35				17.5
CPVC	146		156	149	26.5				13.3
CPVC	147		169	168	42.5				21.3
CPVC	148		156	158	31				15.5
CPVC	149		162	160	35				17.5
CPVC	150		154	151	26.5				13.3
CPVC	151		155	153	28				14.0
CPVC	152		159	159	33				16.5
CPVC	153		151	162	30.5				15.3
CPVC	154		155	159	31				15.5
CPVC	155		157	151	28				14.0
CPVC	156		160	158	33				16.5
CPVC	157		153	157	29				14.5
CPVC	158		158	158	32				16.0
Adh	159		16.1	14.2	15.7	14.4	15.8	14.3	15.1
Adh	160		22.6	20.1	22.9	20.5	22.9	21.3	21.7
Tabor	161		16.4	15.3	16.3	15.2	16.1	15.2	15.8
Tabor	162		17	17.3	16.7	17.6	17.1	17.8	17.3
Impact	163		22.3	18.4	22.3	18.3	22.4	18.1	20.3
Impact	164		17.8	15.6	17.2	15.8	18.1	16.5	16.8

average 15.6 16.1 15.6 16.1 15.6 16.3 15.9

NSP 120
Multipurpose High Build Coating

Product Description

This coating product is intended for industrial use only.

A two component, high solids, self-priming, high-build coating, NSP-120 Coating is ideal where protection against corrosion, chemicals and caustics are important. This coating can be applied below and above the waterline and will cure and adhere properly in contact with water. This same feature means that damp surfaces above the water line may be coated without waiting for the surface to dry.

The components of NSP 120 comply with FDA food additive regulations applicable to coatings used on containers holding potable water and nonacid (pH>5) aqueous products, which may contain salt or sugar or both and products which may include oil-in-water emulsions of low or light fat content. NSP 120 has been found chemically acceptable by the USDA for application to structural surfaces or surfaces where there is a possibility of incidental food contact. This coating is lead and chromate free.

Physical Data

Resin: Special Epoxy Resin and Hardeners

Pigment: Titanium Dioxide, Color and Fillers

Non Volatile Solids Content: 100%

Coverage: Theoretical; 107 sq. ft./gallon at 15 mils thickness

Practical; 96 sq. ft./gallon at 15 mils thickness less application loss

Curing Time: Tack Free; 6 Hours @ 77°F. Hard; 12 Hours @ 77°F

(For Cold Temperature Conditions, See "Application", Page 3)

Pot Life: 1 Hour @77°F.

Shelf Life: Unmixed Components: One Year

Mix Ratios: 2 Parts A: 1 Part B By Volume

Maximum Recommended Service Temperature: 300°F

Features and Benefits:

- High film build in one coat and excellent adhesion
- Excellent hardness and abrasion resistance
- Performance unaffected by fresh or sea water, gasoline, kerosene, and crude oil
- No maximum recoat time - can be applied at low temperatures
- Nontoxic in the fully cured state
- Excellent resistance to chemicals, including acid and caustics
- Significantly reduces labor costs and downtime

Note: Before using this product, be sure to read Application section (page 3) and Warnings section (page 4).

Coating Thickness

Coating thicknesses between 5 and 500 mils are usable. Each application should be considered individually to choose the optimum thickness. Cost considerations make thinner coatings desirable, but thicker coatings may be required to achieve and maintain a continuous, protective film under conditions of surface roughness or particular or unusual wear patterns.

Consult our technical representatives for assistance when specifying coating thickness.

Recommended Services

One coat of NSP 120 puts a hard, durable surface on a variety of materials - metals, wood, fiberglass, and concrete. See application instructions for details.

Whether below the water line or above on a wet surface, NSP 120 displaces water. The coating bonds to the surface being coated and forms a watertight barrier.

NSP 120 retards corrosion and surface deterioration when applied in a continuous film. Properly used and applied, it can lower maintenance costs and prolong the life of structures such as:

- Submerged or splash zone areas of steel offshore drilling and production platforms
- Piping in underwater, swampy, or other constantly or frequently wet areas
- Docking facilities, piers, bulkheads, and abutments
- Concrete reservoirs, sewer systems, cooling towers, and processing plant floors
- Potable water storage vessels
- General maintenance

NSP 120 is the ideal product for application to surfaces which cannot be maintained in the water-free condition necessary for application of conventional coatings.

Surface Preparation

Though NSP 120 performs well with minimum surface preparation, no coating product will perform to its maximum potential unless the surface to be coated is properly prepared to accept and hold it. Surfaces to be coated should be as clean and free of contamination (except for water) as possible. Contamination will provide a barrier between the coating and substrate and detract from the strength of the bond.

Steel or Concrete

All surfaces should be abrasive blasted, hydroblasted, power tool or hand cleaned to remove loose rust, mill scale, oil and grease, bacteria or algae growth, and other contaminants.

Fiberglass

Abrade the surface of fiberglass to provide an anchor pattern and remove contaminants.

Wood

Timbers to be coated should be abraded with a rasp or scraper to remove any softened portions and to provide a solid substrate for the coating.

Contact our technical representatives for detailed surface preparation information.

Application

If applying NSP 120 Coating below 45°F, use NSP Accelerator A1. Minor pits, cracks, and irregularities in surfaces to be coated should be filled with NSP 120 before application of the coating by any of the following methods.

Do not thin if the coating is to be applied under water.

Brushing/Rolling

Using a short nap, phenolic core roller, or a nylon or bristle type brush, apply a first layer in a thin film, working the material into the substrate pattern. Follow this with a second layer, applying with a flowing motion rather than a heavy brushing action. Do not spread the finish layer out into a very thin coating. Replenish the brush when the applied coating layer starts to thin.

Grout

Add desired amount of suitable aggregate to mixed coating material. Contact our sales representatives for recommendations on aggregate selection. Use of aggregate containing clay may affect the curing process adversely. Mix until all particles are wetted and a smooth consistency is achieved. The viscosity can be varied by changing the amount of aggregate added.

Anti-Skid Surfaces

To give an anti-skid property to a floor or other surface, sprinkle desired grade of anti-skid medium over the surface during coating but before curing.

Spray

NSP 120 may be used in airless or conventional spray equipment. Thin with NSP T1 Thinner if needed. Do not exceed 30% by volume thinner. Follow MSDS recommendations for safety precautions regarding its use.

Conventional:	Air Cap:
Devilbiss	MSC 368
Binks	66 SS
Graco	02

Airless:

Tip Size; .019-.025
Pressure; 2400 psi
Material Hose; 3/8"

Trowel

Apply the coating by trowel to the nominal thickness desired. Spread mixture over the surface, working it into the surface pattern, and smooth with a steel finishing trowel. If the trowel begins to drag, wet the trowel with water, or NSP T1 Thinner, and continue troweling until a smooth surface is obtained.

Wrapping

Thoroughly impregnate each strip of wrap with the mixed coating material by immersing in a suitable container. Start with a full double wrap at one end of the member to be coated. Continue along the member with a spiral wrap, overlapping 50%. Finish with a full double wrap at the end of the member.

Cleanup

Clean the coating material from the application equipment before material cures, using an acetone solvent in a well-ventilated area, free of sparks, flames, and other heat sources. In the event of accidental skin contact with the uncured coating or coating components, clean skin using alcohol, then wash with soap and water. Cleaning should be performed before the coating cures. A hand lotion is desirable for replenishing skin moisturizers removed by the cleaning solvents.

Warnings

Epoxy resins and hardeners are classified as irritants and sensitizers. Certain individuals may have or develop a sensitivity to this coating or its components in the uncured state. Contact with the skin and inhalation of the vapors and mists should be avoided through the use of protective clothing such as rubber gloves, aprons, face shields, and respirators. If redness, dermatitis, or respiratory tract irritation occurs, discontinue use and consult a physician.

Clothing and tools contaminated with unmixed coating components may be dry-cleaned or cleaned with appropriate solvents. Once the coating material has been mixed and cures, it will be necessary to physically abrade the coating to remove it from clothing, tools, or other surfaces. Heavily contaminated clothing should be discarded if the coating has cured. Dispose of such clothing in accordance with applicable laws.

Limited Warranty

Seller represents and warrants that NSP 120 Industrial Coating will coat and bond to properly prepared, damp or dry surfaces as detailed above and will retard corrosion and abrasion of the coated material. No agent, employee or representative of Seller has authority to bind Seller to any oral affirmation, recommendation, representation or warranty unless contained in a written agreement signed by both Buyer and Seller.

Seller expressly disclaims all other warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose or any other warranties relating to the condition of this product.

Buyer acknowledges that it is familiar with and experienced in the use of industrial coating products, and expressly assumes all responsibility resulting from or in any way connected with the possession, transportation, handling or use of this product, whether singly or in combination with other products.

Seller's liability with respect to any claim arising out of or relating to Buyer's purchase, possession or use of this product is expressly limited to, at Seller's option, (i) replacement of the product, or (ii) return of the purchase price, together with transportation charges incurred by the Buyer, if any. *Seller assumes no responsibility for incidental or consequential damages, or for any other damages relating to any alleged nonconformity or defect in the product or to its purchase, possession or use.*

Material Safety Data Sheet

A material safety data sheet is supplied with this product. For an extra copy, call or write NSP Specialty Products.

P. O. Box 4690
Pinehurst, North Carolina
28374-4690

NSP
Specialty
Products

1-800-248-8907
1-910-944-1255
Fax 1-910-944-1258

Effective and Print Date: 12/01/93

MSDS #120002

Page #1

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

Product Code: 120 Part A (Resin)
 Product Name: NSP 120 Multipurpose Coating
 Product Class: Modified Epoxy Resin
 CAS Number: None Assigned

NSP Specialty Products, 312 Fields Dr. Sandhills Ind. Park, Aberdeen, NC
 28315 - 24 hr. Emergency Phone (910)944-1255 or (800)248-8907

SECTION II - INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS#</u>	<u>Exposure Limits</u>
Modified Epoxy Resin	Proprietary	None Assigned
N-Butyl Glycidyl Ether	2426-08-6	ACGIH TLV 25 ppm
Microcrystalline Silica, tripoli	1317-95-9	ACGIH TLV 0.1 mg/cu.m
Titanium Dioxide	13463-67-7	OSHA PEL 15.0 mg/cu.m
Hydrous Magnesium Silicate	14807-96-6	ACGIH TLV 2.0 mg/cu.m

Contains other ingredients and pigments which should be treated as nuisance dust - TLV - 10 mg/cu.m, 8 hr. TWA (total dust)

SECTION III - HAZARDS IDENTIFICATION

*****EMERGENCY OVERVIEW*****

Viscous resinous material with mild, characteristic odor. Color indicated on label. Eye and skin irritant. May cause sensitization and dermatitis. Avoid contact with eyes, skin and clothing.

Potential Health Effects

EYE: Causes mild to moderate eye irritation.

SKIN: Causes skin irritation. May cause sensitization and dermatitis.

INGESTION: Swallowing large amounts may cause injury and GI tract irritation.

INHALATION: May cause nasal irritation. Prolonged overexposure may cause central nervous system depression or lung injury.

CHRONIC (CANCER INFORMATION): Contains Microcrystalline Silica. Inhalation of silica dust (respirable) may cause delayed lung injury or disease. The International Agency for Research on Cancer (IARC) has evaluated that there is "sufficient evidence" that Microcrystalline Silica can cause cancer in laboratory animals and there is "limited evidence" with respect to humans. IARC Monograph: Level 2A Grouping. Take appropriate measures to avoid breathing spray during application or removal of cured product by use of NIOSH approved respirator. By using proper safety precautions, this ingredient is not expected to present a significant hazard.

SECTION IV - FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids apart to ensure rinsing of entire eye surface and lids with water.

SKIN: Promptly wipe clean with paper or cloths and wash with soap and water. Remove and wash any contaminated clothing before reuse.

INGESTION: If 120 Part A is swallowed, promptly induce vomiting and get medical attention. Do not give anything by mouth to an unconscious or convulsing person. If mixed product (120 Part A and Part B) is swallowed, do not induce vomiting and get immediate medical attention.

INHALATION: If ill effects occur, remove to fresh air. Keep warm and quiet and get medical attention promptly.

SECTION V - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: > 173 Deg. F (78 Deg. C) Method: CC

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide and aldehydes.

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical or water spray.

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear goggles and self-contained breathing apparatus to avoid inhalation.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Absorb spill with suitable absorbent material (dry sand, earth) and shovel into closed containers for disposal. Flush contaminated area with water.

LARGE SPILL:

Dike area and pump into closed containers. Prevent runoff from entering into storm sewers and ditches which could lead to natural waterways. Wear protective equipment during cleanup.

SECTION VII - HANDLING AND STORAGE

HANDLING:

This material may cause sensitization. Do not get in eyes, on skin or clothing. Do not allow contaminated clothing to come in contact with skin. Avoid contact with vapors and fumes. Wear protective equipment.

STORAGE:

Store in closed containers in cool, dry, place. Avoid heat and warm storage areas.

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OF POOR QUALITY**

SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS:

Control airborne concentrations below the exposure limits. Use only with adequate ventilation. Local exhaust and general ventilation is recommended.

RESPIRATORY PROTECTION:

NIOSH approved respirator suitable for organic vapors if TLV is exceeded.

SKIN PROTECTION:

Chemical-resistant plastic or rubber gloves. Wear protective equipment as required to prevent wetting the skin or clothing.

EYE PROTECTION:

Chemical splash goggles.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: Not applicable

MELTING POINT: Not applicable

VAPOR DENSITY: Non-volatile

% VOLATILES: NIL

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 1.45

ODOR: Mild, characteristic odor

APPEARANCE: Resinous, viscous liquid. Color indicated on label.

SECTION X - STABILITY AND REACTIVITY

CHEMICAL STABILITY: (CONDITIONS TO AVOID)

Keep away from heat and warm storage areas. Stable.

INCOMPATIBILITY:

Strong oxidizers, acids, alkalies and epoxy hardeners under uncontrolled conditions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, aldehydes.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION XI - TOXICOLOGICAL INFORMATION

None available

SECTION XII - ECOLOGICAL INFORMATION

None available

SECTION XIII - DISPOSAL CONSIDERATIONS

Care should be taken to ensure that the material or its containers are disposed of in an approved facility in accordance with current federal, state and local regulations.

Effective and Print Date: 12/01/93
Product Code: 120 Part A (Resin)

MSDS #120002

Page #4

SECTION XIV - TRANSPORT INFORMATION

Not regulated by DOT

SECTION XV - REGULATORY INFORMATION

OSHA:

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

SARA SECTION 313 LISTED INGREDIENTS:

This product does not contain any substances which are subject to the reporting requirements of 40 CFR 372.

SECTION XVI - OTHER INFORMATION

This information herein is given in good faith and is accurate to the best of NSP Specialty Products knowledge based on published MSDS from manufacturers, however no warranty, express or implied, is made as to the accuracy or completeness of these data and recommendations.

Revision of MSDS120A - Issue Date 6/1/93

MATERIAL SAFETY DATA SHEET

Effective and Print Date: 12/01/93

MSDS #120003

Page #1

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

Product Code: 120 Part B (Hardener)
Product Name: NSP 120 Multipurpose Coating
Product Class: Modified Epoxy Hardener
CAS Number: None Assigned

NSP Specialty Products, 312 Fields Dr. Sandhills Ind. Park, Aberdeen, NC
28315 - 24 hr. Emergency Phone (910)944-1255 or (800)246-6907

SECTION II - INFORMATION ON INGREDIENTS

Ingredients	CAS#	Exposure Limits
Alkyl Amines/Amine Epoxy Adducts	Proprietary	None Assigned
Epoxy Resin	Proprietary	None Assigned
Benzyl Alcohol	100-51-6	None Assigned
Phenol	108-95-2	ACGIH TLV 5 ppm Skin
Microcrystalline Silica, tripoli	1317-95-9	ACGIH TLV 0.1 mg/cu.m
Hydrous Magnesium Silicate	14807-96-6	ACGIH TLV 2.0 mg/cu.m
Contains other ingredients which should be treated as nuisance dust - TLV - 10 mg/cu.m, 8 hr. TWA (total dust)		

SECTION III - HAZARDS IDENTIFICATION

*****EMERGENCY OVERVIEW*****

Viscous beige liquid with mild characteristic amine odor. Causes severe eye irritation. Causes skin irritation. May cause allergic skin reaction and sensitization. Avoid contact with eyes, skin or clothing. Avoid breathing mist or spray.

Potential Health Effects

EYE: Causes severe eye irritation.

SKIN: Causes moderate to severe skin irritation. May cause allergic skin reaction and sensitization.

INGESTION: Substance is extremely harmful if swallowed.

INHALATION: Prolonged or repeated inhalation may cause lung damage or respiratory irritation. Avoid breathing mist or spray.

CHRONIC (CANCER INFORMATION): Contains Microcrystalline Silica. Inhalation of silica dust (respirable) may cause delayed lung injury or disease. The International Agency for Research on Cancer (IARC) has evaluated that there is "sufficient evidence" that Microcrystalline Silica can cause cancer in laboratory animals and there is "limited evidence" with respect to humans. IARC Monograph: Level 2A Grouping. Take appropriate measures to avoid breathing spray during application or removal of cured product by use of NIOSH approved respirator. By using proper safety precautions, this ingredient is not expected to present a significant hazard.

Effective and Print Date: 12/01/93
Product Code: 120 Part B (Hardener)

MSDS #120003

Page #2

SECTION IV - FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids apart to ensure rinsing of the entire eye surface and lids with water. If physician is not available, continue flushing for an additional 15 minutes. Get immediate medical attention.

SKIN: Immediately remove contaminated clothing and shoes. Wash affected areas with mild soap and water for at least 15 minutes. Get medical attention if necessary. Discard or decontaminate clothing before re-use.

INGESTION: If 120 Part B is swallowed, immediately give at least 3 - 4 glasses of water, but do not induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person. Get immediate medical attention. If mixed product (120 Part A and Part B) is swallowed, do not induce vomiting and get immediate medical attention.

INHALATION: If ill effects occur, remove to fresh air. If breathing is difficult, get immediate medical attention.

SECTION V - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: > 200 Deg. F (93 Deg. C) Method: CC

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides,

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical or water spray.

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear goggles and self-contained breathing apparatus to avoid inhalation of hazardous combustion products.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Avoid personal contact. Absorb spill with suitable absorbent material (dry sand, earth) and shovel into closed containers. Flush contaminated areas with water.

LARGE SPILL:

Ventilate area. Avoid personal contact. Dike area and pump into closed containers. Prevent runoff from entering into storm sewers and ditches which could lead to natural waterways. Wear protective equipment during cleanup.

SECTION VII - HANDLING AND STORAGE

HANDLING:

Avoid personal contact. Do not get in eyes, on skin or clothing. Do not allow contaminated clothing to come in contact with skin. Avoid contact with vapors and fumes. Wear protective equipment and wash thoroughly with mild soap and water after handling.

STORAGE:

Store in tightly closed containers in cool, dry, place. Avoid heat and warm storage areas.

SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS:

Control airborne concentrations below the exposure limits. Use only with adequate ventilation. Local exhaust and general ventilation is recommended.

RESPIRATORY PROTECTION:

NIOSH approved respirator suitable for organic vapors if TLV is exceeded.

SKIN PROTECTION:

Chemical-resistant plastic or rubber gloves. Wear protective equipment as required to prevent wetting the skin or clothing.

EYE PROTECTION:

Chemical splash goggles or full face shield is recommended.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: Not applicable

MELTING POINT: Not applicable

VAPOR DENSITY: Non-volatile

% VOLATILES: NIL

SOLUBILITY IN WATER: Very slight

SPECIFIC GRAVITY: 1.21

ODOR: Mild, amine odor

APPEARANCE: Beige viscous liquid

SECTION X - STABILITY AND REACTIVITY

CHEMICAL STABILITY: (CONDITIONS TO AVOID)

Keep away from heat and warm storage. Stable.

INCOMPATIBILITY:

Strong oxidizers, acids and epoxy resins under uncontrolled conditions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides.

HAZARDOUS POLYMERIZATION:

Will not occur.

Effective and Print Date: 12/01/93
Product Code: 120 Part B (Hardener)

MSDS #120003

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SECTION XI - TOXICOLOGICAL INFORMATION

None available

SECTION XII - ECOLOGICAL INFORMATION

None available

SECTION XIII - DISPOSAL CONSIDERATIONS

Care should be taken to ensure that the material or its containers are disposed of in an approved facility in accordance with current federal, state and local regulations.

SECTION XIV - TRANSPORT INFORMATION

Not regulated by DOT

SECTION XV - REGULATORY INFORMATION**OSHA:**

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

SARA SECTION 313 LISTED INGREDIENTS:

This product contains a substance which is subject to the reporting requirements of 40 CFR 372.

2.0% Phenol CAS # 108-95-2

SECTION XVI - OTHER INFORMATION

This information herein is given in good faith and is accurate to the best of NSP Specialty Products knowledge based on published MSDS from manufacturers, however no warranty, express or implied, is made as to the accuracy or completeness of these data and recommendations.

Revision of MSDS120B - Issue Date 6/1/93

Idate Coatings		Manufacturer's Product Data and Recommendations						
Manufacturer	Product	Surface Prep	Profile mils	Coats #	DFT, aa. (mid)	Vol. Solids %	Abrasive used	Appl Equip
NSP Specialty Products								
NSP 120		SP-7	1	2	8 to 12	100%	Alum. Oxide (24)	B,R,C,A
phenolic epoxy								
Mavor-Kelly (dist.)								

Panel Numbers SS=83-104

Alum=105-126

Coupled=127-140

CPVC=141-158

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	83	2.4	14.6	21	14.4	20.2	14.7	19.4	17.4
SS	84		14.6	14	14.1	14.6	13.7	14.4	14.2
SS	85		15.8	15.9	14.8	16.4	14.9	16.1	15.7
SS	86		15.3	19.1	15.3	19	15.5	19.1	17.2
SS	87		16.3	14	15.6	14.3	16.5	14.3	15.2
SS	88	2.6	14.8	15.5	14.7	16.4	14.6	15.6	15.3
SS	89		13.1	14.4	13.4	15.5	13.1	14.4	14.0
SS	90		16	15.8	15	15.9	15.9	15.9	15.8
SS	91		17.4	21.1	17.5	21.7	17.4	22.5	19.6
SS	92		16.2	14.3	16.2	15.1	16.2	15.5	15.6
SS	93	2.5	15.3	13.5	15.8	14.5	15	14.6	14.8
SS	94		16.2	16.4	16.4	15.7	16.7	15.9	16.2
SS	95		17.4	17.4	18.3	18.1	18.3	17.5	17.8
SS	96		14.5	14.3	14.8	14.3	14.9	14.3	14.5
SS	97		18.6	16.7	19.6	16.7	18.8	17.2	17.9
SS	98	2.5	14.5	17.6	14.4	17.5	14.4	17.8	16.0
SS	99		15.8	15.5	14.8	14.7	15.1	14.7	15.1
SS	100		15.3	16.3	15.4	15.5	15.9	16.6	15.8
SS	101		14.4	15.2	15.4	16.1	15.2	15.5	15.3
SS	102		14.2	15.7	14.3	15.6	14.3	15.6	15.0
SS	103	2.3	13	15.2	13.1	15.7	13.6	15.1	14.3
SS	104		15.9	14.8	16.6	14.6	15.7	15.3	15.5
ALUM	105	2.5	15.4	13.7	16	14.3	15.7	13.5	14.8
ALUM	106		18.4	18.2	18.5	18.2	18.6	18.5	18.4
ALUM	107		13.4	16.3	13.9	16	13.9	16.1	14.9
ALUM	108		13.1	13.8	13.1	14.1	13.1	14.2	13.6
ALUM	109		14.6	18.2	14.2	18.2	14.3	17.9	16.2
ALUM	110	2.7	16.9	15	16.5	14.9	16.7	15.5	15.9
ALUM	111		16.2	15	16.4	14.9	16.5	15	15.7
ALUM	112	2.7	13.6	14.8	13.4	15.2	13.9	15.4	14.4
ALUM	113		14.2	16.9	14.4	16.9	14	16.6	15.5
ALUM	114		18.9	16.9	19.3	17.2	21.2	16.7	18.4
ALUM	115	2.5	18	18	18.1	17.8	18.3	18.7	18.2
ALUM	116	3.1	16.5	17	16.4	16.8	16.8	17	16.8
ALUM	117		16.1	13.9	16.3	13.8	16.3	13.5	15.0
ALUM	118		12.7	12.7	13.3	12.9	13.2	13	13.0
ALUM	119		16.9	15.3	17.3	15.6	17.3	16.9	16.6
ALUM	120	2.7	16.7	14.8	16.6	14.9	16.8	15.2	15.8
ALUM	121	3.0	17.1	15.7	17	16.2	17.2	15.8	16.5
ALUM	122		14.3	13.9	14.2	13.9	14.4	14	4.8
ALUM	123	3.0	12.8	14.3	14.2	16	14.1	16	14.6
ALUM	124		16.8	15.8	16.8	15.7	17.1	16.2	16.4
ALUM	125	2.7	20.5	14.4	15.4	15.7	13.4	16	15.9
ALUM	126		22.5	27	22.5	26	22.6	25	24.3
SSCPL	127	2.2	14.9	14.8	14.9	14.3	15	14.2	14.7
AL CPL	127	2.6	12	12.8	12.6	12.6	12.4	13.3	12.6
SSCPL	128		15.4	15	16.5	15.3	16.6	14.9	15.6
AL CPL	128		14.5	15.2	13.8	15.3	14.1	15.3	14.7
SSCPL	129		16.6	14.2	16.8	14.2	16.8	13.8	15.4
AL CPL	129	3.0	12.2	16.6	13.3	16.4	12.7	16.5	14.6
SSCPL	130		11.5	8.9	10.7	8.7	9.7	9.9	9.9
AL CPL	130		13.9	16.1	13.6	16.5	13.9	15.8	15.0

AL CPL	131		10.2	13.4	11.1	12.2	11.5	12.7	11.9
SS CPL	131		15.1	16.3	15.3	16.1	14.3	15.4	15.4
SS CPL	132	2.1	13.3	15.9	13.5	16.1	13.5	16	14.7
AL CPL	132	2.3	21.4	22	21.3	22.4	21.3	21.9	21.7
SS CPL	133		19.3	19.2	19.7	19.1	19	19	19.2
AL CPL	133		15.7	17	14.9	17.1	15.9	17.8	16.4
SS CPL	134		21.8	20.6	22	20.7	23	21	21.5
AL CPL	134		22	20.7	20.1	19.7	20.2	20.2	20.5
AL CPL	135		13.3	15.1	13.2	15.8	13	15.7	14.4
SS CPL	135		16.5	17.4	16.4	17.5	15.7	18.1	16.9
SS CPL	136		16.4	14.4	15.7	14.7	15.2	14.6	15.2
AL CPL	136		11.6	13.5	11.4	13.4	12.2	14.6	12.8
SS CPL	137	2.1	15.2	15.5	15.8	15	15	15	15.3
AL CPL	137	2.5	11.2	16	10.9	15.9	10.8	16.1	13.5
SS CPL	138		20.6	20.2	20.7	20	20.1	20.4	20.3
AL CPL	138		20.1	20.2	18.4	17.9	18.1	19.2	19.0
SS CPL	139		14.9	15.3	14.8	15.7	14.8	14.8	15.1
AL CPL	139		13.6	14.7	13.3	14.6	14.2	14.7	14.2
SS CPL	140		13.8	15.1	13.8	15.2	17.1	18.6	15.6
AL CPL	140		13.3	16.2	14	16.4	14.6	16.7	15.2
CPVC	141		153	154	27.5				13.8
CPVC	142		157	160	32.5				16.3
CPVC	143		159	160	33.5				16.8
CPVC	144		155	153	28				14.0
CPVC	145	1.2	162	160	35				17.5
CPVC	146		156	149	26.5				13.3
CPVC	147		169	168	42.5				21.3
CPVC	148		156	158	31				15.5
CPVC	149		162	160	35				17.5
CPVC	150		154	151	26.5				13.3
CPVC	151		155	153	28				14.0
CPVC	152		159	159	33				16.5
CPVC	153		151	162	30.5				15.3
CPVC	154		155	159	31				15.5
CPVC	155		157	151	28				14.0
CPVC	156		160	158	33				16.5
CPVC	157		153	157	29				14.5
CPVC	158		158	158	32				16.0
Adh	159		16.1	14.2	15.7	14.4	15.8	14.3	15.1
Adh	160		22.6	20.1	22.9	20.5	22.9	21.3	21.7
Tabor	161		16.4	15.3	16.3	15.2	16.1	15.2	15.8
Tabor	162		17	17.3	16.7	17.6	17.1	17.8	17.3
Impact	163		22.3	18.4	22.3	18.3	22.4	18.1	20.3
Impact	164		17.8	15.6	17.2	15.8	18.1	16.5	16.8

average 15.6 16.1 15.6 16.1 15.6 16.3 15.9

Summary of Work Performed: *NSP-120*CLIENT: *NSA*JCB NO: *H6341**(Repair)*

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	<i>NSP-120</i>		
Batch Numbers (Record)	<i>A) 020294/ B) 030204/</i>		
Material Temperature/Potlife (Record)			
Correct Thinner/Amount (Record)			
Time of Mix (Record)			
Mix Ratio (Record)	<i>11:0:0</i>		
Induction Period (Record)	<i>2:1</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>74°</i> WB: <i>64°</i> RH: <i>58%</i> DP: <i>59°</i> ST:		
Applicator's Name (Record)	<i>C. Poche'</i>		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	<i>11:05</i>		
Surrounding Air Cleanliness			
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)			
Time Application Complete (Record)	<i>11:15</i>		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: *C Poche'*
Date: *5/1/94*
Report No.
Page *01*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JCB NO: H 6341

Summary of Work Performed: 4th coat

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	N5P 120		
Batch Numbers (Record)	A=0202941 / B=0302941		
Material Temperature/Potlife (Record)	73°F 1 hr.		
Correct Thinner/Amount (Record)	20%		
Time of Mix (Record)	11:15 am 1:40 pm		
Mix Ratio (Record)	2:1		
Induction Period (Record)	NA		

APPLICATION

Ambient Conditions (Record)	2nd 71°F 64°F 68% 60°F 68°F 1st DB: 75°F WB: 67°F RH: 64% DP: 63°F ST: 67°F		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)		✓	
Compressed Air Cleanliness		✓	
Time Application Began (Record)	11:20 am 1:45 p		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)	NA		
Intercoat Cleanliness		✓	
Proper Pot Agitation		✓	
Application Equipment (Record)	Devilbiss 69 Cx		
Time Application Complete (Record)	12:10 p 2:40 p		

INSPECTION

Visual Appearance		✓	
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: viscosity change during application. Pickups during 1st. Smir. of prep. Pickups returned at end of potlife.

Inspector: R. Buggette
Date: 4/15/94
Report No.
Page of

ON 4-7-94 AT 13:45, Contacted Lee Hatchley
Regarding the Film thickness of the product NSP
120 to be used in immersion service. Lee explained
with a surface profile at 2.5 mil, he recommends two
coats to achieve a min of 10 mil. DFT.

C. Poles

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: *NASD*JCB NO: *H6341*Summary of Work Performed: *Apply 3rd Coat of NSP*

PRE-SURFACE PREPARATION

Condition of Edges, Weld Spatter, Etc.					
Grease/Oil Removal (Record Solvent)					
Clean Dry Abrasive					
Recycled Abrasive Test					
Nozzle Air Pressure (Record)					
Compressed Air Cleanliness (Record)					

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	<i>NSP 130</i>			
Batch Numbers (Record)	<i>A-0202941 / B-0302941</i>			
Material Temperature/Potlife (Record)				
Correct Thinner/Amount (Record)	<i>T-1 0.31194 22%</i>			
Time of Mix (Record)	<i>3:40 pm 4:30 pm 5:20 p</i>			
Mix Ratio (Record)	<i>2:1</i>			
Induction Period (Record)	<i>NA</i>			

APPLICATION

Ambient Conditions (Record)	DB: <i>75°F</i>	WB:	RH:	DP:	ST: <i>67</i>
Applicator's Name (Record)	<i>C. J. Beck</i>				
Surface Prep. to Appl. (Record Time)	<i>N/A</i>				
Compressed Air Cleanliness					
Time Application Began (Record)	<i>3:50 p</i>	<i>4:40 p</i>	<i>5:25 p</i>		
Surrounding Air Cleanliness					
Recoat Times Observed (Record Actual)	<i>N/A</i>				
Intercoat Cleanliness					
Proper Pot Agitation	<i>N/A</i>				
Application Equipment (Record)	<i>Dev. 16155 69 C/P</i>				
Time Application Complete (Record)	<i>4:20</i>	<i>5:10</i>	<i>5:45 p</i>		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	<i>See DFT Tables</i>		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *Gradual Viscosity change throughout application*

Inspector: *C. J. Beck*
 Date: *4/12/94*
 Report No.
 Page *01*

Summary of Work Performed: Apply 2nd coat of N5P

PRE-SURFACE PREPARATION

Condition of Edges, Weld Spatter, Etc.	S	U
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfgr/Product Name (Record)	N5P 120		
Batch Numbers (Record)	A: 03032941 / B: 03032941		
Material Temperature/Potlife (Record)	78°F 2 Hr		
Correct Thinner/Amount (Record)	T-1 031194 30%		
Time of Mix (Record)	01:05 PM		
Mix Ratio (Record)	2:1		
Induction Period (Record)	N/A		

APPLICATION

Ambient Conditions (Record)	DB: 76°F WB: 56°F RH: 69% DP: 60° ST: 71°F		
Applicator's Name (Record)	Chris Beck		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	01:15 PM	✓	
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)	N/A		
Intercoat Cleanliness	N/A		
Proper Pot Agitation	N/A		
Application Equipment (Record)	Devilbiss 69 exp		
Time Application Complete (Record)	01:55 PM		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: Thin up to 30% to perform better spray patterns and coat will be required to achieve specified milage.

Inspector: C. Beck
Date: 4/1/94
Report No.
Page of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JCB NO: H-6341

Summary of Work Performed:

Apply NSP 12.0

#55983 ALUM 105-125 COUPLED 127-140 CPVC 141-158 TABER 161-162
PRE-SURFACE PREPARATION IMPACT 163-164 PRE-EXP 159-160

Condition of Edges, Weld Spatter, Etc.		S	U
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			
SURFACE PREPARATION			

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					
MIXING					

Mfr/Product Name (Record)			
Batch Numbers (Record)	<u>NSP 12.0</u>	✓	
Material Temperature/Potlife (Record)	<u>A(0202941) B(0302941)</u>	✓	
Correct Thinner/Amount (Record)	<u>70°F 1 hr. at 77°F</u>	✓	
Time of Mix (Record)	<u>NSP-T1 - 25%</u>	✓	
Mix Ratio (Record)	<u>2:23 4:08</u>	✓	
Induction Period (Record)	<u>2:1 BY VOLUME</u>	✓	
APPLICATION	<u>N/A</u>	✓	

03/194

Ambient Conditions (Record)	11:25 am	DB: 70°F WB: 51°F RH: 22% DP: 30°F ST:
Applicator's Name (Record)	<u>Chris Poche</u>	✓
Surface Prep. to Appl. (Record Time)		✓
Compressed Air Cleanliness		✓
Time Application Began (Record)		✓
Surrounding Air Cleanliness	<u>2:32 4:11</u>	✓
Recoat Times Observed (Record Actual)		✓
Intercoat Cleanliness	<u>N/A</u>	✓
Proper Pot Agitation	<u>N/A</u>	✓
Application Equipment (Record)	<u>N/A</u>	✓
Time Application Complete (Record)	<u>DEVILBISS 30 CAP</u>	✓
INSPECTION	<u>2:29 4:58</u>	✓

Visual Appearance		
Dry Film Thickness (DFT)		
Holiday Test (Record Method)	See DFT Tables	
Cure Test (Record Method)		

REMARKS: NEEDS 2 COATS TO GET 10 MILS WGT. 1 COAT LET TACK-UP THEN APPLY 2ND COAT.

Inspector: E. W. Arrow
Date: 3/15/94
Report No.
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PANEL # / TAG #

FRONT

BACK

083 SS

PRESS-O-FILM™ F
No. 083
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 083
Mils. 2.2
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 083
Mils. 2.6
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

088

PRESS-O-FILM™ F
No. 088
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 088
Mils. 2.7
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 088
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

093

PRESS-O-FILM™ F
No. 093
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 093
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 093
Mils. 2.4
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

098

PRESS-O-FILM™ F
No. 098
Mils. 2.4
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 098
Mils. 2.3
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 098
Mils. 2.7
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

103 SS

PRESS-O-FILM™ F
No. 103
Mils. 2.3
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 103
Mils. 2.2
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 103
Mils. 2.3
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

105 ALUM

PRESS-O-FILM™ F
No. 105
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 105
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 105
Mils. 2.6
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

110

PRESS-O-FILM™ F
No. 110
Mils. 2.6
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 110
Mils. 2.7
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 110
Mils. 2.8
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

115

PRESS-O-FILM™ F
No. 115
Mils. 2.7
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 115
Mils. 2.3
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 115
Mils. 2.5
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

120 ALUM

PRESS-O-FILM™ F
No. 120
Mils. 2.6
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ F
No. 120
Mils. 2.7
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

PRESS-O-FILM™ B
No. 120
Mils. 2.8
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

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Panel/Tag #	Front	Front	Back
5-111	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
5-125	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
5-121	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
5-119	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
5-120	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A-121	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.1</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A-123	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A-112	PRESS-O-FILM™ No. <u>2.6</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A-129	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
125 ALUM	PRESS-O-FILM™ F No. 125 Mils. 2.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 125 Mils. 2.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 125 Mils. 2.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
127 COUPLED SS	PRESS-O-FILM™ F No. 127 Mils. 2.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 127 Mils. 2.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 127 Mils. 2.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
127 COUPLED ALUM	PRESS-O-FILM™ F No. 127 Mils. 2.6 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 127 Mils. 2.6 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 127 Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
132 COUPLED SS	PRESS-O-FILM™ F No. 132 Mils. 2.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. 132 Mils. 1.8 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 132 Mils. 2.3 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
132 COUPLED ALUM	PRESS-O-FILM™ No. 132 Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 132 Mils. 2.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 132 Mils. 2.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
137 COUPLED SS	PRESS-O-FILM™ F No. 137 Mils. 2.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 137 Mils. 2.0 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 137 Mils. 2.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
137 COUPLED ALUM	PRESS-O-FILM™ F No. 137 Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. 137 Mils. 2.4 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. 137 Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
145 CPVC	PRESS-O-FILM™ No. 145 Mils. 1.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (.8-2.0)	PRESS-O-FILM™ No. 147 Mils. 1.3 Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (.8-2.0)	PRESS-O-FILM™ No. 156 Mils. 1.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (.8-2.0)

Staircase Double

Staircase Double

A-116	PRESS-O-FILM™ No. <u>2.9</u> (<u>2.9</u>) Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.2</u> (<u>3.2</u>) Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.1</u> (<u>3.1</u>) Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
	PRESS-O-FILM™ No. <u>2.7</u> (<u>2.7</u>) Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.1</u> (<u>2.1</u>) Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.3</u> (<u>2.3</u>) Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
5-344	PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.3</u> (<u>2.3</u>) Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
	PRESS-O-FILM™ No. <u>2.5</u> (<u>2.5</u>) Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.4</u> (<u>2.4</u>) Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
5-338	PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.4</u> (<u>2.4</u>) Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
	PRESS-O-FILM™ No. <u>3.2</u> (<u>3.2</u>) Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.2</u> (<u>3.2</u>) Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.0</u> (<u>3.0</u>) Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
5-347	PRESS-O-FILM™ No. <u>2.9</u> (<u>2.9</u>) Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.5</u> (<u>2.5</u>) Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.7</u> (<u>2.7</u>) Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
	PRESS-O-FILM™ No. <u>3.1</u> (<u>3.1</u>) Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.8</u> (<u>2.8</u>) Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.6</u> (<u>2.6</u>) Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
5-342	PRESS-O-FILM™ No. <u>3.2</u> (<u>3.2</u>) Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.9</u> (<u>2.9</u>) Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.1</u> (<u>3.1</u>) Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
	PRESS-O-FILM™ No. <u>3.2</u> (<u>3.2</u>) Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>2.9</u> (<u>2.9</u>) Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		PRESS-O-FILM™ No. <u>3.1</u> (<u>3.1</u>) Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	

System	Product	Prep	mils	#	(mid)	%	used	Equip
2	NSP Specialty Products NSP 120 phenolic epoxy Mavor-Kelly (dist.)	SP-7	1	2	8 to 12	100%	Alum. Oxide (24)	B,R,C,A

Panel Numbers		SS=	Alum=		Coupled=		CPVC=		
Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT	
SS	83		14.6	14.21	14.4	20.2	14.7	19.4	#DIV/0!
SS	84		14.6	14.0	14.1	14.6	13.7	14.4	#DIV/0!
SS	85		15.8	15.9	14.8	14.4	14.9	16.1	#DIV/0!
SS	86		15.3	19.1	15.3	19.0	15.5	19.1	#DIV/0!
SS	87		16.3	14.0	15.6	14.3	16.5	14.3	#DIV/0!
SS	88		14.8	15.5	14.7	16.4	14.6	15.6	#DIV/0!
SS	89		13.1	14.4	13.4	15.5	13.1	14.4	#DIV/0!
SS	90		16.0	15.8	15.0	15.9	15.9	15.9	#DIV/0!
SS	91		17.4	21.1	17.5	21.7	17.4	22.5	#DIV/0!
SS	92		17.4 16.2	21.1 14.3	17.5 14.2	21.7 15.1	17.4 14.2	22.5 15.5	#DIV/0!
SS	93		15.3	13.5	15.8	14.5	15.0	14.6	#DIV/0!
SS	94		16.2	16.4	16.4	15.7	16.7	15.9	#DIV/0!
SS	95		17.4	17.4	18.3	18.1	18.3	17.5	#DIV/0!
SS	96		14.5	14.3	14.8	14.3	14.9	14.3	#DIV/0!
SS	97		18.6	16.7	19.6	16.7	18.8	17.2	#DIV/0!
SS	98		14.5	17.6	14.4	17.5	14.4	17.8	#DIV/0!
SS	99		15.8	15.5	14.8	14.7	15.1	14.7	#DIV/0!
SS	100		15.3	16.3	15.4	15.5	15.9	16.6	#DIV/0!
SS	101		14.4	15.2	15.4	16.1	15.2	15.5	#DIV/0!
SS	102		14.2	15.7	14.3	15.6	14.3	15.6	#DIV/0!
SS	103		13.0	15.2	13.1	15.7	13.6	15.1	#DIV/0!
SS	104		15.9	14.8	16.6	14.6	15.7	15.3	#DIV/0!
ALUM	105		15.4	13.7	16.0	14.3	15.7	13.5	#DIV/0!
ALUM	106		18.4	18.2	18.5	18.2	18.4	18.5	#DIV/0!
ALUM	107		13.4	16.3	13.9	16.0	13.9	16.1	#DIV/0!
ALUM	108		13.1	13.8	13.1	14.1	13.1	14.2	#DIV/0!
ALUM	109		14.6	18.2	14.2	18.2	14.3	17.9	#DIV/0!
ALUM	110		16.9	15	16.5	14.9	16.7	15.5	#DIV/0!
ALUM	111		16.2	15.0	16.4	14.9	16.5	15.0	#DIV/0!
ALUM	112		14.2 13.6	14.8	13.4	15.2	13.9	15.4	#DIV/0!
ALUM	113		14.2	16.9	14.4	16.9	14	16.6	#DIV/0!
ALUM	114		18.9	16.9	19.3	17.2	21.2	16.7	#DIV/0!
ALUM	115		18.0	18.0	18.1	17.8	18.3	18.7	#DIV/0!
ALUM	116		16.5	17	16.4	16.8	16.8	17	#DIV/0!
ALUM	117		17.7 14.1	15.7 15.7	16.4 16.3	15.3 12.8	18.9 14.3	15.2 12.5	#DIV/0!
ALUM	118		14.0 12.2	13.8 13.7	13.4 13.3	13.7 12.9	13.6 13.2	13.5	#DIV/0!
ALUM	119		16.9	15.3	17.3	15.6	17.3	16.9	#DIV/0!
ALUM	120		16.7	14.8	16.6	14.9	16.8	15.2	#DIV/0!

15.4
16.0
1.1

ALUM	121		17.1	15.7	17.0	16.2	17.2	15.8	#DIV/0!
ALUM	122		14.3	14.4	14.2	13.9	14.4	14.0	4.8
ALUM	123		12.8	14.3	14.2	16.	14.1	16	#DIV/0!
ALUM	124		16.8	15.8	16.8	15.7	17.1	16.2	#DIV/0!
ALUM	125		25.5	14.4	15.4	15.7	13.4	16.	#DIV/0!
ALUM	126		22.5	27	22.5	26	22.4	25	#DIV/0!
SS CPL	127		14.9	14.8	14.9	14.3	15	14.2	#DIV/0!
AL CPL	127		12	12.8	12.6	12.6	12.4	13.3	#DIV/0!
SS CPL	128		15.4	15.0	16.5	15.3	16.6	14.9	#DIV/0!
AL CPL	128		14.5	15.2	13.8	15.3	14.1	15.3	#DIV/0!
SS CPL	129		16.6	14.2	16.8	14.2	16.8	13.8	#DIV/0!
AL CPL	129		12.2	16.6	13.3	16.4	12.7	16.5	#DIV/0!
SS CPL	130		11.5	8.9	10.7	8.7	9.7	9.9	#DIV/0!
AL CPL	130		13.9	16.1	13.6	16.5	13.9	15.8	#DIV/0!
AL CPL	131		10.2	13.4	11.1	12.2	11.5	12.7	#DIV/0!
SS CPL	131		15.1	16.3	15.3	16.1	14.3	15.4	#DIV/0!
SS CPL	132		13.3	15.9	13.5	16.1	13.5	16	#DIV/0!
AL CPL	132		21.4	22	21.3	22.4	21.3	21.9	#DIV/0!
SS CPL	133		19.3	19.2	19.7	19.1	19	19	#DIV/0!
AL CPL	133		15.7	17.0	14.9	17.1	15.9	17.8	#DIV/0!
SS CPL	134		21.8	20.6	22	20.7	23	21	#DIV/0!
AL CPL	134		22.0	20.7	20.1	19.7	20.2	20.2	#DIV/0!
AL CPL	135		13.3	15.1	13.2	15.8	13.0	15.7	#DIV/0!
SS CPL	135		16.5	17.4	16.4	17.5	15.7	18.1	#DIV/0!
SS CPL	136		16.4	14.4	15.7	14.7	15.2	14.6	#DIV/0!
AL CPL	136		11.6	13.5	11.4	13.4	12.2	14.6	#DIV/0!
SS CPL	137		15.2	15.5	15.8	15	15	15	#DIV/0!
AL CPL	137		11.2	16	10.9	15.9	10.8	16.1	#DIV/0!
SS CPL	138		20.6	20.2	20.7	20	20.1	20.4	#DIV/0!
AL CPL	138		20.1	20.2	18.4	17.9	18.1	19.2	#DIV/0!
SS CPL	139		14.9	15.3	14.8	15.7	14.8	14.8	#DIV/0!
AL CPL	139		13.6	14.7	13.3	14.6	14.2	14.7	#DIV/0!
SS CPL	140		13.8	15.1	13.8	15.2	17.1	18.6	#DIV/0!
AL CPL	140		13.3	16.2	14	16.4	14.0	16.7	#DIV/0!
CPVC	141	159	16.1	14.2	15.7	14.4	15.8	14.3	#DIV/0!
CPVC	142	160	22.6	20.1	22.9	20.5	22.9	21.3	#DIV/0!
CPVC	143	161	16.4	15.3	16.3	15.2	16.1	15.2	#DIV/0!
CPVC	144	162	17.0	17.3	16.7	17.6	17.1	17.8	#DIV/0!
CPVC	145	163	22.3	18.4	22.3	18.3	22.4	18.1	#DIV/0!
CPVC	146	164	17.8	15.6	17.2	15.8	18.1	16.5	#DIV/0!

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Identify Coatings

Manufacturer's Product Data and Recommendations

Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
NSP Specialty Products NSP 120 phenolic epoxy Mavor-Kelly (dist.)	SP-7	1	2	8 to 12	100%	Alum. Oxide (24)	B,R,C,A

Panel Numbers SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 83		6.2	6.5	6.1	6.2	6.4	6.4	#DIV/0!
SS 84		7.4	7.2	7.2	6.8	7.6	6.6	#DIV/0!
SS 85		8.2	7.1	8.1	6.6	8.3	7.1	#DIV/0!
SS 86		4.7	7.3	5.3	7.0	5.4	7.6	#DIV/0!
SS 87		7.5	5.6	7.2	5.4	6.3	5.3	#DIV/0!
SS 88		7.8	8.9	7.7	8.6	7.5	8.4	#DIV/0!
SS 89		11.8	10.3	11.6	10.2	11.4	9.4	#DIV/0!
SS 90		10.3	7.3	9.8	7.2	9.6	6.8	#DIV/0!
SS 91		6.0	7.8	5.8	7.8	5.8	7.7	#DIV/0!
SS 92		7.8	8.3	7.7	8.2	8.0	8.1	#DIV/0!
SS 93		8.0	6.6	7.9	7.1	8.0	6.4	#DIV/0!
SS 94		9.1	8.1	9.1	8.1	8.8	8.1	#DIV/0!
SS 95		8.5	8.6	8.8	8.6	8.7	8.4	#DIV/0!
SS 96		7.1	8.6	7.1	8.3	6.6	8.3	#DIV/0!
SS 97		9.6	7.6	9.9	7.3	10.1	7.5	#DIV/0!
SS 98		5.5	7.1	5.3	7.2	4.9	7.1	#DIV/0!
SS 99		7.4	6.9	8.8	8.8	9.7	8.8	#DIV/0!
SS 100		8.9	7.9	8.8	8.0	8.8	8.4	#DIV/0!
SS 101		8.6	7.0	7.7	6.7	8.2	6.8	#DIV/0!
SS 102		5.2	5.1	4.8	4.5	5.1	4.5	#DIV/0!
SS 103		6.9	9.1	6.7	9.7	6.8	9.9	#DIV/0!
SS 104		8.3	7.5	8.4	7.3	8.5	7.3	#DIV/0!
ALUM 105		6.5	5.3	6.4	5.4	6.8	5.7	#DIV/0!
ALUM 106		10.0	8.8	9.2	9.1	9.0	9.5	#DIV/0!
ALUM 107		7.1	7.6	7.1	7.1	7.1	7.5	#DIV/0!
ALUM 108		7.3	4.9 8.7	7.9 1	10.4 8.8	7.4 8.7	10.7 9.2	#DIV/0!
ALUM 109		8.7	11.6	8.8	11.7	8.9	11.5	#DIV/0!
ALUM 110		8.8	7.3	9.2	7.4	9.1	7.3	#DIV/0!
ALUM 111		9.2	6.9	9.1	6.8	9.6	6.8	#DIV/0!
ALUM 112		5.3	6.5	5.1	6.5	7.4	8.6	#DIV/0!
ALUM 113		8.3	10.0	9.9	12.0	9.5	11.5	#DIV/0!

Coating System 2 NSP Specialty Products NSP 120

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	114	10.7	10.2	10.2	10.2	10.5	9.4	#DIV/0!
ALUM	115	10.9	9.7	11.2	9.6	10.8	9.9	#DIV/0!
ALUM	116	9.0	9.4	8.5	9.7	8.4	9.5	#DIV/0!
ALUM	117	9.0	8.5	8.9	8.2	9.1	8.3	#DIV/0!
ALUM	118	7.7	7.3	7.8	7.2	7.7	7.2	#DIV/0!
ALUM	119	9.9 8.4	6.1 7.6	9.2 8.4	5.2 7.5	8.7	7.5	#DIV/0!
ALUM	120	OK 8.6	8.7	8.5	8.8	8.2	8.6	#DIV/0!
ALUM	121	8.2	7.8	8.1	7.9	8.2	7.7	#DIV/0!
ALUM	122	6.4	6.5	6.1	6.3	6.7	6.3	4.8
ALUM	123	6.5	8.5	6.5	8.4	6.4	8.5	#DIV/0!
ALUM	124	9.3	9.2	8.8	9.8	8.4	8.5	#DIV/0!
ALUM	125	8.5	7.7	7.5	7.1	10.9	7.6	#DIV/0!
ALUM	126	14.3	11.7	14.5	11.5	14.4	11.8	#DIV/0!
SS CPL	127	6.5	5.5	6.2	6.0	6.3	6.1	#DIV/0!
AL CPL	127	6.3	6.4	6.1	7.0	6.1	6.6	#DIV/0!
SS CPL	128	6.6	6.6	6.7	7.4	5.7	6.9	#DIV/0!
AL CPL	128	7.3	7.3	7.0	7.3	7.1	7.5	#DIV/0!
SS CPL	129	6.8	6.6	7.3	6.8	6.8	6.6	#DIV/0!
AL CPL	129	7.2	8.5	7.1	8.5	8.0	8.5	#DIV/0!
SS CPL	130	6.1	6.2	6.3	6.5	6.0	6.8	#DIV/0!
AL CPL	130	8.6	7.5	6.9	7.7	6.7	7.5	#DIV/0!
SS CPL	131	9.0	8.6	8.5	9.1	8.0	9.0	#DIV/0!
AL CPL	131	6.5	8.2	6.3	8.5	6.9	8.2	#DIV/0!
SS CPL	132	5.9	8.0	5.3	8.1	5.9	8.2	#DIV/0!
AL CPL	132	11.2	11.2	11.2	11.5	11.2	11.2	#DIV/0!
SS CPL	133	6.3	7.3	7.8	6.9	6.6	7.3	#DIV/0!
AL CPL	133	6.6	8.3	7.3	8.2	6.9	8.1	#DIV/0!
SS CPL	134	6.6	8.0	7.4	8.1	7.2	8.0	#DIV/0!
AL CPL	134	7.8	8.3	8.5	8.3	8.0	8.0	#DIV/0!
SS CPL	135	6.4	9.1	6.3	8.4	6.3	8.4	#DIV/0!
AL CPL	135	6.2	6.6	6.7	6.6	6.6	7.4	#DIV/0!
SS CPL	136	6.7	6.0	6.8	6.4	6.1	6.3	#DIV/0!
AL CPL	136	6.4	7.2	6.2	7.4	6.4	8.3	#DIV/0!
SS CPL	137	6.7	6.7	6.5	6.6	6.6	6.3	#DIV/0!
AL CPL	137	6.3	8.0	6.7	7.9	6.8	9.9	#DIV/0!

Coating System 2 NSP Specialty Products NSP 12

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 138		6.9	7.9	7.2	7.9	7.2	8.2	#DIV/0!
AL CPL 138		8.4	8.4	8.1	8.3	9.2	8.2	#DIV/0!
SS CPL 139		6.7	8.1	6.4	8.0	6.4	8.1	#DIV/0!
AL CPL 139		8.4	9.3	8.0	8.8	8.0	9.1	#DIV/0!
SS CPL 140		6.8	7.5	7.2	7.4	7.0	8.0	#DIV/0!
AL CPL 140		8.5	10.7	7.7	10.7	8.4	10.9	#DIV/0!
CPVC 141		153	154					#DIV/0!
CPVC 142		157	160					#DIV/0!
CPVC 143		159	160					#DIV/0!
CPVC 144		155	153					#DIV/0!
CPVC 145		162	160					#DIV/0!
CPVC 146		156	149					#DIV/0!
CPVC 147		169	168					#DIV/0!
CPVC 148		156	158					#DIV/0!
CPVC 149		162	160					#DIV/0!
CPVC 150		154	151					#DIV/0!
CPVC 151		155	153					#DIV/0!
CPVC 152		159	159					#DIV/0!
CPVC 153		162	151					#DIV/0!
CPVC 154		155	159					#DIV/0!
CPVC 155		157	151					#DIV/0!
CPVC 156		160	158					#DIV/0!
CPVC 157		153	157					#DIV/0!
CPVC 158		158	158					#DIV/0!
Adh 159		7.0	6.7	6.8	7.1	6.4	7.0	#DIV/0!
Adh 160		6.9	7.7	7.0	8.0	6.9	7.9	#DIV/0!
Tabor 161		8.5	8.7	8.3	8.5	8.3	8.4	#DIV/0!
Tabor 162		8.0	10.9	8.6	10.4	8.4	10.5	#DIV/0!
Impact 163		6.1	7.8	6.6	7.5	6.4	7.9	#DIV/0!
Impact 164		6.4	6.3	6.5	6.9	5.9	6.5	#DIV/0!

System

2

Candidate Coatings Manufacturer Product	Manufacturer's Product Data and Recommendations						
	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
NSP Specialty Products NSP 120 phenolic epoxy Mavor-Kelly (dist.)	SP-7	1	2	8 to 12	100%	Alum. Oxide (24)	B,R,C,A

Panel Numbers SS= 83- 104 Alum= 112- 126 Coupled= 127-140 CPVC= 141- 158

Panel #/Tag #	Surface Profile	Primer Coat Front			Top Coat BACK		
		DFT	DFT	DFT	DFT	DFT	DFT
SS 083	2.4	5.1	6.7	7.4	4.9	4.7	4.6
084		6.0	5.6	6.4	5.2	4.6	4.4
085		6.0	5.3	6.6	6.3	6.1	5.6
086		6.3	7.1	4.8	4.9	5.1	5.3
087		5.4	4.9	4.1	5.3	5.1	4.8
088	2.6	6.5	6.3	6.8	5.5	6.0	6.5
089		9.4	9.7	8.9	3.7	4.9	2.7
090		7.5	6.9	6.1	5.8	8.3	5.4
091		5.5	7.2	7.8	4.2	5.4	5.8
092		6.6	7.2	7.1	6.4	7.0	6.3
093	2.5	5.2	5.7	5.3	7.3	6.7	4.6
094		6.1	6.7	6.4	6.0	7.0	5.8
095		6.1	7.1	5.2	5.8	6.0	5.9
096		5.7	5.9	6.9	6.4	7.6	4.7
097		7.6	7.4	6.0	6.7	6.8	4.3
098	2.5	6.1	6.4	3.2	3.6	4.6	5.2
099		6.1	6.4	4.8	6.7	7.4	6.4
100		6.2	7.1	5.8	7.1	6.4	8.0
101		7.3	7.2	7.2	5.9	6.2	5.0
102		5.5	5.6	5.5	4.8	5.1	3.5
103	2.3	5.8	5.6	8.8	4.4	6.0	5.9
SS 104		7.0	5.6	6.1	6.5	6.8	6.0
ALUM 105	2.5	7.4	5.8	6.6	3.2	3.1	2.2
106		5.3	6.6	5.6	6.7	6.6	6.1
107		4.2	5.3	4.8	4.9	6.6	6.4
108		6.1	5.9	6.0	5.7	6.6	7.8
109		6.1	7.8	8.8	6.8	6.4	6.7
110		6.0	6.4	5.5	5.6	4.8	7.2
111		4.9	4.9	6.1	5.3	5.0	3.4
ALUM 112		5.3	4.9	5.5	3.6	5.0	4.5

Coating System

NSP 120

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Panel #/Tag #	Surface Profile	Primer Coat			Top Coat		
		DFT	DFT	Front DFT	DFT	DFT	Back DFT
ALUM 113		5.7	6.9	6.6	4.3	4.3	4.3
114		4.2	4.2	3.8	7.2	6.6	5.5
115		4.7	4.2	4.4	6.9	6.0	6.1
116		6.2	6.8	6.7	4.0	3.7	4.3
117		5.7	5.3	6.0	6.6	8.5	7.6
118		4.7	5.5	4.8	6.2	7.6	6.1
119		5.4	5.7	4.9	6.0	6.6	3.3
120		4.6	5.8	5.5	5.2	6.8	6.2
121		5.7	6.3	6.5	5.1	5.9	6.1
122		4.5	3.9	4.9	5.1	6.9	6.1
123		4.8	3.2	4.8	4.8	5.9	6.2
124		5.4	4.2	4.6	5.8	7.6	6.5
125		4.9	4.6	4.0	5.0	5.5	5.8
ALUM 126		9.9	10.6	8.0	2.0	1.6	1.9
COUPLED 127	AL	3.8	4.6	4.3	3.8	4.2	3.3
	SS	4.2	6.3	3.9	4.2	4.7	3.4
128	AL	4.1	4.9	4.6	6.1	4.3	6.1
	SS	4.5	5.1	5.1	5.9	5.6	4.7
129	AL	4.3	6.3	5.8	6.3	5.3	4.2
	SS	5.3	5.1	5.4	5.3	7.2	5.1
130	AL	4.9	4.7	5.0	4.7	3.8	4.3
	SS	4.5	6.1	4.6	4.6	4.6	4.4
131	AL	4.9	6.1	5.3	7.5	8.6	6.6
	SS	6.8	5.9	6.8	5.2	6.1	3.7
132	AL	6.2	8.3	7.8	4.3	5.4	4.8
	SS	4.6	5.6	6.1	6.3	6.2	6.1
133	AL	6.8	6.4	5.7	6.8	7.1	7.0
	SS	5.3	6.4	5.7	4.7	4.8	4.4
134	AL	6.8	6.1	6.1	4.7	5.8	5.2
	SS	5.8	6.4	6.5	6.1	8.0	6.9
135	AL	3.5	4.3	4.3	6.5	7.6	5.9
	SS	5.3	4.6	6.4	4.6	5.1	4.7
136	AL	4.3	4.6	5.5	5.9	6.0	6.9
	SS	4.7	7.7	4.5	5.2	5.8	5.6
137	AL	4.8	6.1	6.9	5.2	5.2	5.5
	SS	5.0	4.8	6.1	5.6	7.2	7.1
138	AL	5.7	6.4	5.6	6.3	5.8	4.8
	SS	5.4	5.9	6.6	6.5	8.6	7.8
139	AL	6.4	6.7	6.5	5.5	5.5	4.8
	SS	5.2	5.6	6.2	6.7	7.0	5.4
COUPLED 140	AL	6.0	8.0	7.9	4.8	5.2	4.5
	SS	4.8	4.7	5.9	6.8	8.0	7.9
CPVC 141							
142							
143							
144							
145							

[illegible]

System #3 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Devco Coatings Devran 230 polyamide epoxy	SP-10	2	2	4 to 8	71%	Alum. Oxide (24)	B,R,C,A

Panel Numbers SS=165-186 Alum= 187-208 Coupled= 209-222 CPVC= 223-240.

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	165	2.3	7.7	8.4	7.7	8.2	7.8	8.3
SS	166		8.3	9.1	9.7	9.4	10.8	9.4
SS	167		8	8.8	8.3	8.4	8.5	8.7
SS	168		6.8	7.8	6.6	7.2	6.9	7.2
SS	169		6.3	7	7	6.9	6.7	7.1
SS	170	2.3	8.6	7.9	8.9	7.9	9.2	8.1
SS	171		7.9	8.2	7.8	7.7	7.8	7.2
SS	172		7.1	8.4	6.8	7.5	7.4	7.9
SS	173		10	9.6	10.1	10	10	10
SS	174		8	7.4	8.1	7.6	8.2	7.3
SS	175	2.4	9.2	9.6	10	8.9	9.6	9
SS	176		9.2	9	8.6	8.7	9.2	9.5
SS	177		7.5	8.1	7.6	7.5	8.9	8.1
SS	178		10.1	9.6	10.1	9.7	10.2	9.7
SS	179		7.9	8.6	8.1	8.1	8.4	8.2
SS	180	2.3	9	8.5	9.4	8.3	9.3	8.5
SS	181		8.4	7.5	8.6	8.3	8.8	7.7
SS	182		8	8.8	8.3	8.8	8.2	8.8
SS	183		8.3	9.5	7.9	9.4	8.3	8.9
SS	184		7.2	9.6	7.8	10.2	7.1	9.8
SS	185	2.2	10.2	11.2	12	10.3	10.7	9.7
SS	186		8.5	8.9	8.3	8.3	8.1	8.8
ALUM	187	2.9	9.5	9.1	9.3	10.3	9.7	9.1
ALUM	188		8.2	8.5	8.4	8.3	8.2	8.1
ALUM	189		9.8	8.9	9.8	8.7	9.4	8.7
ALUM	190		8.2	9.3	9.8	8.9	8	8.8
ALUM	191		10	9.7	9.8	9.4	9.9	8.8
ALUM	192	3.1	8.4	6.4	8.5	6.3	7.7	8.1
ALUM	193		9.2	9.8	9.3	10	9.8	10
ALUM	194		10.3	8.3	9.5	7.7	10.6	8
ALUM	195		7.7	8.4	8.2	8.6	8	8.5
ALUM	196		8.4	8.5	8.3	8.3	9.9	9.4
ALUM	197	3.1	7.3	9.9	7.4	10.6	8.1	11.5
ALUM	198		9.5	8.8	9.9	8.8	8.9	10.1
ALUM	199		9.1	9.7	9.5	9.6	9.8	9.7
ALUM	200		7.7	8.1	8.1	7.9	7.9	8.3
ALUM	201		11.1	9.2	10.9	9.2	11.1	9.5
ALUM	202	3.4	10.1	10.7	11.3	11.8	10.8	11.8
ALUM	203		5.9	7.7	6.7	8.2	7.4	6.5
ALUM	204		7.9	9	7.9	8.6	7.7	8.4
ALUM	205		8.9	8.3	8.7	8.2	9.1	8.3
ALUM	206		8.4	8.7	8.4	8.3	9	8.2
ALUM	207		7	8.6	7.5	7.4	7.6	7.7
ALUM	208	2.7	8.4	8.3	8.1	9.4	9.2	10.1
SS CPL	209	2.3	9.2	10.6	9.9	10.6	9.2	11.1

AL CPL	209	2.9	8.7	8.8	9	8.7	9.1	8.9	8.9
SS CPL	210		7.9	9	7.6	8.6	7.6	8.9	8.3
AL CPL	210		7.9	9.3	7.5	9.7	8.3	9.6	8.7
SS CPL	211		6.3	6.8	6.2	6.6	5.9	7.3	6.5
AL CPL	211		6.7	8.8	7.6	7.8	7.3	7.9	7.7
SS CPL	212		6.3	10.6	6.2	11	6.2	10.9	8.5
AL CPL	212		7.3	9.4	7.3	9.1	6.9	9.1	8.2
SS CPL	213		9.5	9.9	8.8	9.9	9.5	9.5	9.5
AL CPL	213		9.3	8.8	9.8	9.4	9.6	9.4	9.4
SS CPL	214	2.0	8.6	8.8	8.4	9.1	8.9	9.2	8.8
AL CPL	214	2.7	10.1	10.5	10.1	10.2	10	10.4	10.2
SS CPL	215		7.1	7.4	7.6	7.4	7.4	7.3	7.4
AL CPL	215		8.2	11.4	8	10.7	8.1	11.2	9.6
SS CPL	216		8.1	8	8.5	9.1	8.1	8.7	8.4
AL CPL	216		7	6.5	6.5	6.1	5.8	6.2	6.4
SS CPL	217		7.1	8.7	7.1	9.1	7.6	8.8	8.1
AL CPL	217		6.6	6.8	6.9	8.8	6.5	8.7	7.4
SS CPL	218		6.6	6.9	6.3	6.8	6.4	6.9	6.7
AL CPL	218		5	0.3	7.6	6.2	7.2	5.8	7.6
SS CPL	219	2.0	10.7	10.1	10.6	10	10.2	8.9	10.1
AL CPL	219	2.7	9	10.8	9.5	10.5	9.6	10.7	10.0
SS CPL	220		8.5	5.9	9	5.8	8.6	5.7	7.3
AL CPL	220		7.6	8.2	7.6	8.5	7.5	8.7	8.0
SS CPL	221		8.5	8	7.6	8.2	8	8.1	8.1
AL CPL	221		6.2	8.4	6.4	8.7	6	6.7	7.4
SS CPL	222		6.5	7.7	6.6	8.1	6.3	7.4	7.1
AL CPL	222		7	7.4	7.7	7	7.1	6.7	7.2
CPVC	223		153	151	25	23	24	12	12.0
CPVC	224		146	146	18	18	18	9	9.0
CPVC	225		145	142	17	14	15.5	7.75	7.8
CPVC	226		148	147	20	19	19.5	9.75	9.8
CPVC	227		152	150	24	22	23	11.5	11.5
CPVC	228	1.4	143	140	15	12	13.5	6.75	6.8
CPVC	229		149	144	21	16	18.5	9.25	9.3
CPVC	230		144	144	16	16	16	8	8.0
CPVC	231		150	147	22	19	20.5	10.25	10.3
CPVC	232		154	150	26	22	24	12	12.0
CPVC	233		143	142	15	14	14.5	7.25	7.3
CPVC	234		153	153	25	25	25	12.5	12.5
CPVC	235		145	143	17	15	16	8	8.0
CPVC	236		144	147	16	19	17.5	8.75	8.8
CPVC	237		145	143	17	15	16	8	8.0
CPVC	238		145	145	17	17	17	8.5	8.5
CPVC	239		145	146	17	18	17.5	8.75	8.8
CPVC	240		144	142	16	14	15	7.5	7.5
Adh	241		10.2	8.7	10.3	8.3	10	8.6	9.4
Adh	242		9.3	8.9	9.9	8.6	9.4	8.9	9.2
Impact	243		8.6	7.6	9.1	7.4	9.4	7.8	8.3
Impact	244		9.3	8.1	9	8.9	8.4	8.6	8.6
Tabor	245		8.7	8.6	8.9	8.4	8.6	8.3	8.6
Tabor	246		8.4	9.6	8.4	10	8.3	10.2	9.2
		average	8.2	8.6	8.4	8.7	8.4	8.7	8.7



Marine · Industrial · Offshore

Devran® 230

High Build Epoxy Coating

Catalog Number 230-K-XXXX

FEATURES**Water Resistance**

- Outstanding resistance to sea water and fresh water

Durability

- Tough and rugged. Will resist wear and abrasion, providing extended corrosion protection

Economy

- High volume solids and high build capability equate to lower costs than many lesser coatings for both repair and new construction
- Minimal surface preparation required

Easy Application

- Thick film readily applies by airless spray in one application. Self-priming

Multi-functional

- Use for all heavy-duty corrosion control needs
- Non-bleeding
- Provides maximum resistance to impressed current

Cold Weather Cure

- Minimum application temperature 32°F(0°C).
- Use cold weather additive for application down to 25°F(-4°C)

RECOMMENDED USES**Ships, Offshore, and Marine Structures**

- Above and below-water hull areas
- Decks and superstructures
- Dry cargo holds
- Wet voids
- Platforms, pilings, and docks
- Ballast water tanks
- Multi-purpose repair coating

Structural Steel, Equipment, and Masonry

- Pulp and paper mills
- Chemical and fertilizer plants
- Sewage treatment plants
- Storage tanks and pipes
- Water holding tanks
- Bridges

SPECIFICATION DATA**Coating Type** Hydrocarbon modified epoxy**Colors** **Catalog Number**

Haze Gray	230-K-2904
Off White	230-K-3501
Oxide Red	230-K-7821
Black	230-K-9903

Packaging 5 Gallon and 1 Gallon two-component kits**Component Ratio** 4 to 1 by volume**Gloss** Semi-gloss**Flash Point** 100°F (38°C) Setaflash**Thinner** Devco T-10 Thinner**Pot Life** 5 hours at 77°F (25°C)**Shelf Life** More than 2 years**Density** 10.5 Lbs/Gal (1.26 kg/l)**Induction time** 15 minutes**Theoretical Spreading Rate**

1139 Sq.Ft/Gal at 1 mil (28.1 Sq. m/ at 25 microns)

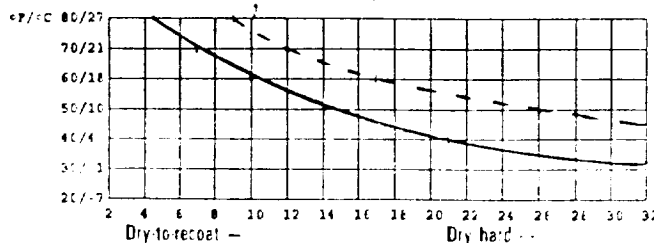
VOC	2.1 Lbs/Gal
EPA 24	(247 Grams per liter)

Temp. Resistance 250°F (121°C) dry**Volume Solids** 71% ASTM D2697 (7 day)**Recommended Film Thickness**

5.6-11.3 mils wet to obtain 4.0-8.0 mils dry

Application Spray**Time — Temperature Drying Curve**

Hours at 8 mils (200 microns) D.F.T.



The above curve is intended only as a general guideline. Ventilation, film thickness, humidity, thinning and other factors can influence the rate of dry (ASTM D1640)

**ORIGINAL PAGE IS
OF POOR QUALITY**

Application Guide

Surface Preparation

Devran 230 Coating provides maximum performance over near white blasted surfaces (Steel Structures Painting Council SP-10 or Swedish Standard Sa 2½) which have been primed with Devran 201 Epoxy Primer or Catha-Coat® 302 or 302H Reinforced Inorganic Zinc Primers.

There are, however, situations and cost limitations where grit blasting to near white metal is not possible. Devran 230 Coating has proven protection over less than ideal surface preparation. For underwater use, apply two coats of Devran 230 Coating over a commercial blast (SSPC SP-6 or Swedish Standard Sa2). For structural steel or above water use, power tool cleaning (to SSPC SP-3 or Swedish Standard Sa3) is acceptable.

Devran 230 Coating will also provide excellent performance over concrete. Surfaces should be dry, with release agents and laitance removed by abrasive blasting or acid etching.

Mixing and Thinning

Devran 230 Coating is a two component product supplied in 5 gallon or 1 gallon kits which contain the proper ratio of ingredients. The entire contents of each container must be mixed together. Power mix the base portion first to obtain a smooth, homogeneous condition. After mixing the base portion, add the convertor slowly with continued agitation. After the convertor add is complete, continue to mix slowly until homogenous. Allow a 15 minute induction time before using.

Thinning is not normally required or desired; however, at extreme temperatures, small amounts (10% or less) of Devroe T-10 Thinner can be added depending on local VOC and air quality regulations. Any solvent addition should be made after the two components are thoroughly mixed. The pot life of the mixed material is 5 hours at 77°F (25°C). Higher temperatures will reduce working life of the coating; lower temperatures will increase it.

Application

Devran 230 Coating can be applied by both airless spray and conventional spray equipment. Where airless equipment is used, A Graco 30:1 Bulldog pump is recommended. A .021 to .031 tip will provide a good spray pattern. Fluid hoses should be a minimum of 3/8" ID with a maximum length of 50 feet.

For airless applications, a Graco 30:1 Bulldog or 35:1 Senator or larger is recommended with tip sizes from .021 to .031. Fluid hoses should not be less than 3/8" ID and no longer than 50 feet to obtain optimum results. Longer hose length may require an increase in pump ratio.

For touch-up work, Devran 230 Coating can be applied by brush or roller. Care should be taken that proper and uniform film thicknesses are obtained. Antifouling paints should be applied over Devran 230 Coating when the Devran 230 Coatings becomes tack free but still soft to finger pressure. Epoxy coatings may change color and chalk when exposed to direct sunlight.

Ventilation

It is very important for the safety of the applicator and the proper performance of the Devran 230 Coating that good ventilation be provided to all portions of an enclosed area. It is equally important to bring into the enclosed area, dry, fresh air to remove solvent vapors. Since all solvent vapors are heavier than air, ventilation ducts should reach to the lowest portions of enclosed areas as well as into any structural pockets. Provide ventilation throughout the cure period to insure all of the solvents are removed from the coating.

Precautions

See the material safety data sheet and product label for complete safety and precaution requirements.

230/May/93

REGIONAL HEADQUARTERS

KENTUCKY

1101 E. 70th
Louisville, KY 40258
(502) 436-9100

TEXAS

4101 Richmond Road
Sugar Land, TX 77478
(281) 271-1100
(281) 271-1100

NEW JERSEY

800 Park Ave.
Rutherford, NJ 07070
(908) 271-1100

CALIFORNIA

2000 S. Bascom Ave.
San Jose, CA 95128
(415) 271-1100

CANADA

1000 Centre Court
Unit of Flow Group, Canada Ltd.
5000 Don Mills Ave.
Toronto, Ont. M3J 2K3
Canada
(416) 491-9800

THE NETHERLANDS

Devoe Coatings B.V.
Rijksweg 100
2013 AB Rotterdam
(010) 411-1100

SINGAPORE

Devoe Coatings Company
(S) Pte. Ltd.
11, 11th Floor, Raffles
Hotel
Singapore 225
(65) 234-1772

DEVROE COATINGS COMPANY

Division of GROW GROUP, INC.

DISCLAIMER:

This is not a specification and all information is given subject to the same conditions of use and beyond the manufacturer's control. Information contained herein is for informational purposes only and is not intended to be used as a basis for any claim or liability. The manufacturer disclaims any and all liability for any damage or injury resulting from the use of the product. The manufacturer disclaims any and all liability for any damage or injury resulting from the use of the product. The manufacturer disclaims any and all liability for any damage or injury resulting from the use of the product.

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MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER: 23087821
NAME: DEVTRAN 230 HIGH BUILD EPOXY COATING, OXIDE RED BASE

MANUFACTURER: DEVCO COATINGS COMPANY
4000 DUPONT CIRCLE, LOUISVILLE, KY 40207
EMERGENCY TELEPHONE: 800-424-9300 (CHEMTREC)
TELEPHONE: 502-897-9861

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCT. BY WT.	CAS NO.	ACGIH TLV (PPM)	OSHA PEL (PPM)	HAZARDOUS a b c	VAPOR (2) PRESSURE
CRYSTALLINE SILICA [PC]	<.5	7631-86-9	0.1 MG/M3(RESP)	0.1 MG/M3(RESP)		NA
EPOXY RESIN	20	25068-38-6	NE	NE		NA
HIGH FLASH AROMATIC NAPHTHA	10	64742-95-6	100	NE	X	10
HYDROCARBON RESIN	15	64742-16-1	NE	NE		NA
IRON OXIDE	5	1309-37-1	5 MG/M3 FUME	10 MG/M3 FUME		NA
MAGNESIUM SILICATE	20	14807-96-6	2MG/M3(RESP)	2 MG/M3 (RESP)		NA
METHYL N-AMYL KETONE	<5	110-43-0	50	100		2.14
MICA	15	12001-26-2	6 MG/M3	20 MPPCF		NA
N-BUTYL ALCOHOL	10	71-36-3	50 (CL)	50 (CL)	X X	4.2
XYLENE	<5	1330-20-7	100	100	X X	6

NOTE: This product contains ingredients considered potential carcinogens by ACGIH, Federal OSHA, NTP, IARC, or CAL/OSHA. For details see Section V - IX (Health Hazard Data).

ABBREVIATIONS: NE-NOT ESTABLISHED, NA-NOT APPLICABLE/NOT AVAILABLE, (CL)-CEILING LIMIT, D-NUISANCE PARTICLE TLV 10 MG/M3 TOTAL DUST, [C]-CARCINOGEN, [PC]-POTENTIAL CARCINOGEN, DD-INERT OR NUISANCE DUST PEL 15 MG/M3 TOTAL DUST, (1) NOT ESTABLISHED USE STODDARD SOLVENT AS A GUIDE, (2) mm Hg. X - HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103a

SECTION III - PHYSICAL DATA

BOILING RANGE: 244 - 306 DEGREES F	POUNDS PER GALLON: 11.71	VAPOR DENSITY: X	HEAVIER	LIGHTER THAN AIR
PERCENT VOLATILE BY VOLUME: 34.77	VOC: 290.35 (GRAMS/LITER)	EVAPORATION RATE: X	FASTER	SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION
OSHA CLASSIFICATION 29 CFR 1910.106 (a) PARTS 18-19.
COMBUSTIBLE LIQUID - CLASS II

FLASH POINT (Setaflash): 100F
LEL: 1

EXTINGUISHING MEDIA

In case of fire use CO2 Dry Chemical, Foam, or other National Fire Protections Association (NFPA) approved method for treating a Class B Fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and flame. Due to pressure build-up, closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even empty) as product or its residue may ignite. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Summon professional firefighters. Use full protective equipment including self contained breathing apparatus. Water spray may be ineffective. If water is used, fog nozzles preferable. If exposed to fire or extreme heat, water should be used to cool closed containers and prevent pressure build up or possible auto-ignition.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

ACUTE BREATHING: Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest.

SKIN OR EYE CONTACT: Causes eye and skin irritation. May be harmful if absorbed through the skin.

SWALLOWING: Can cause stomach and/or intestinal irritation, nausea, vomiting and diarrhea.

CHRONIC Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Prolonged or repeated breathing of spray mist and/or sanding dust over a period of years may cause dust disease of the lungs.

Silica is listed with IARC as a class 2A carcinogen. Contains crystalline silica which can cause lung damage and cancer. Risk depends on duration and level of exposure.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE

None, when used in accordance with safe handling and use information (See Section VIII).

PRIMARY ROUTE(S) OF ENTRY X SKIN X BREATHING X SWALLOWING

SECTION V Continued on Next Page

**ORIGINAL PAGE IS
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MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER: 230C0910
NAME: DEVTRAN 230 HIGH BUILD EPOXY COATING, CLEAR CONVERTER

MANUFACTURER: DEVCO COATINGS COMPANY
4000 DUPONT CIRCLE, LOUISVILLE, KY 40207
EMERGENCY TELEPHONE: 800-424-9300 (CHEMTREC)
TELEPHONE: 502-897-9861

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCT. BY WT.	CAS NO.	ACGIH TLV (PPM)	OSHA PEL (PPM)	HAZARDOUS a b c	VAPOR (2) PRESSURE
HIGH FLASH AROMATIC NAPHTHA	15	64742-95-6	100	NE	X	10
METHYL N-AMYL KETONE	<5	110-43-0	50	100		2.14
N-BUTYL ALCOHOL	15	71-36-3	50 (CL)	50 (CL)	X X	4.2
PHENOLIC COMPOUND	15	NA	NE	NE	X	NA
POLYAMIDE RESIN	50	68071-65-8	NE	NE		<1

NOTE: This product does not contain ingredients considered carcinogens or potential carcinogens by ACGIH, Federal OSHA, NTP, IARC, or CAL/OSHA.

ABBREVIATIONS: NE-NOT ESTABLISHED, NA-NOT APPLICABLE/NOT AVAILABLE, (CL)-CEILING LIMIT, D-NUISANCE PARTICLE TLV 10 MG/M3 TOTAL DUST, [C]-CARCINOGEN, [PC]-POTENTIAL CARCINOGEN, DD-INERT OR NUISANCE DUST PEL 15 MG/M3 TOTAL DUST, (1) NOT ESTABLISHED USE STODDARD SOLVENT AS A GUIDE, (2) mm Hg. X - HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103a

SECTION III - PHYSICAL DATA

BOILING RANGE: 244 - 428 DEGREES F	POUNDS PER GALLON: 7.83	VAPOR DENSITY: X	HEAVIER	LIGHTER THAN AIR
PERCENT VOLATILE BY VOLUME: 39.5	VOC: 329.91 (GRAMS/LITER)	EVAPORATION RATE: X	FASTER	SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION
 OSHA CLASSIFICATION 29 CFR 1910.106 (a) PARTS 18-19.
 COMBUSTIBLE LIQUID - CLASS II
EXTINGUISHING MEDIA
 In case of fire use CO2 Dry Chemical, Foam, or other National Fire Protections Association (NFPA) approved method for treating a Class B Fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS
 Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and flame. Due to pressure build-up, closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even empty) as product or its residue may ignite. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
SPECIAL FIRE FIGHTING PROCEDURES
 Summon professional firefighters. Use full protective equipment including self contained breathing apparatus. Water spray may be ineffective. If water is used, fog nozzles preferable. If exposed to fire or extreme heat, water should be used to cool closed containers and prevent pressure build up or possible auto-ignition.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE
ACUTE BREATHING: Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest.
 SKIN OR EYE CONTACT: Causes eye and skin irritation. May be harmful if absorbed through the skin.
 SWALLOWING: Can cause stomach and/or intestinal irritation, nausea, vomiting and diarrhea.
CHRONIC Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Prolonged or repeated breathing of spray mist and/or sanding dust over a period of years may cause dust disease of the lungs.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE
 None, when used in accordance with safe handling and use information (See Section VIII).
PRIMARY ROUTE(S) OF ENTRY X SKIN X BREATHING X SWALLOWING

SECTION V Continued on Next Page

**ORIGINAL TEST IS
OF POOR QUALITY**

Candidate Manufacturer's Product Data and Recommendations								Second Coat
Manufacturer Product	Surface Prep	Profile mls	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip	
Devco Coatings Devran 230 polyamide epoxy	SP-10	2	2	4 to 8	71%	Alum. Oxide (24)	B,R,C,A	

Panel Numbers SS=165-186 Alum= 187-208 Coupled= 209-222 CPVC= 223-240.

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	165	2.3	7.7	8.4	7.7	8.2	7.8	8.3	8.0
SS	166		8.3	9.1	9.7	9.4	10.8	9.4	9.5
SS	167		8	8.8	8.3	8.4	8.5	8.7	8.5
SS	168		6.8	7.8	6.6	7.2	6.9	7.2	7.1
SS	169		6.3	7	7	6.9	6.7	7.1	6.8
SS	170	2.3	8.6	7.9	8.9	7.9	9.2	8.1	8.4
SS	171		7.9	8.2	7.8	7.7	7.8	7.2	7.8
SS	172		7.1	8.4	6.8	7.5	7.4	7.9	7.5
SS	173		10	9.6	10.1	10	10	10	10.0
SS	174		8	7.4	8.1	7.6	8.2	7.3	7.8
SS	175	2.4	9.2	9.6	10	8.9	9.6	9	9.4
SS	176		9.2	9	8.6	8.7	9.2	9.5	9.0
SS	177		7.5	8.1	7.6	7.5	8.9	8.1	8.0
SS	178		10.1	9.6	10.1	9.7	10.2	9.7	9.9
SS	179		7.9	8.6	8.1	8.1	8.4	8.2	8.2
SS	180	2.3	9	8.5	9.4	8.3	9.3	8.5	8.8
SS	181		8.4	7.5	8.6	8.3	8.8	7.7	8.2
SS	182		8	8.8	8.3	8.8	8.2	8.8	8.5
SS	183		8.3	9.5	7.9	9.4	8.3	8.9	8.7
SS	184		7.2	9.6	7.8	10.2	7.1	9.8	8.6
SS	185	2.2	10.2	11.2	12	10.3	10.7	9.7	10.7
SS	186		8.5	8.9	8.3	8.3	8.1	8.8	8.5
ALUM	187	2.9	9.5	9.1	9.3	10.3	9.7	9.1	9.5
ALUM	188		8.2	8.5	8.4	8.3	8.2	8.1	8.3
ALUM	189		9.8	8.9	9.8	8.7	9.4	8.7	9.2
ALUM	190		8.2	9.3	9.8	8.9	8	8.8	8.8
ALUM	191		10	9.7	9.8	9.4	9.9	8.8	9.6
ALUM	192	3.1	8.4	6.4	8.5	6.3	7.7	8.1	7.6
ALUM	193		9.2	9.8	9.3	10	9.8	10	9.7
ALUM	194		10.3	8.3	9.5	7.7	10.6	8	9.1
ALUM	195		7.7	8.4	8.2	8.6	8	8.5	8.2
ALUM	196		8.4	8.5	8.3	8.3	9.9	9.4	8.8
ALUM	197	3.1	7.3	9.9	7.4	10.6	8.1	11.5	9.1
ALUM	198		9.5	8.8	9.9	8.8	8.9	10.1	9.3
ALUM	199		9.1	9.7	9.5	9.6	9.8	9.7	9.6
ALUM	200		7.7	8.1	8.1	7.9	7.9	8.3	8.0
ALUM	201		11.1	9.2	10.9	9.2	11.1	9.5	10.2
ALUM	202	3.4	10.1	10.7	11.3	11.8	10.8	11.8	11.1
ALUM	203		5.9	7.7	6.7	8.2	7.4	6.5	7.1
ALUM	204		7.9	9	7.9	8.6	7.7	8.4	8.3
ALUM	205		8.9	8.3	8.7	8.2	9.1	8.3	8.6
ALUM	206		8.4	8.7	8.4	8.3	9	8.2	8.5
ALUM	207		7	8.6	7.5	7.4	7.6	7.7	7.6
ALUM	208	2.7	8.4	8.3	8.1	9.4	9.2	10.1	8.9
SS CPL	209	2.3	9.2	10.6	9.9	10.6	9.2	11.1	10.1

AL CPL	209	2.9	8.7	8.8	9	8.7	9.1	8.9	8.9
SS CPL	210		7.9	9	7.6	8.6	7.6	8.9	8.3
AL CPL	210		7.9	9.3	7.5	9.7	8.3	9.6	8.7
SS CPL	211		6.3	6.8	6.2	6.6	5.9	7.3	6.5
AL CPL	211		6.7	8.8	7.6	7.8	7.3	7.9	7.7
SS CPL	212		6.3	10.6	6.2	11	6.2	10.9	8.5
AL CPL	212		7.3	9.4	7.3	9.1	6.9	9.1	8.2
SS CPL	213		9.5	9.9	8.8	9.9	9.5	9.5	9.5
AL CPL	213		9.3	8.8	9.8	9.4	9.6	9.4	9.4
SS CPL	214	2.0	8.6	8.8	8.4	9.1	8.9	9.2	8.8
AL CPL	214	2.5	10.1	10.5	10.1	10.2	10	10.4	10.2
SS CPL	215		7.1	7.4	7.6	7.4	7.4	7.3	7.4
AL CPL	215		8.2	11.4	8	10.7	8.1	11.2	9.6
SS CPL	216		8.1	8	8.5	9.1	8.1	8.7	8.4
AL CPL	216		7	6.5	6.5	6.1	5.8	6.2	6.4
SS CPL	217		7.1	8.7	7.1	9.1	7.6	8.8	8.1
AL CPL	217		6.6	6.8	6.9	8.8	6.5	8.7	7.4
SS CPL	218		6.6	6.9	6.3	6.8	6.4	6.9	6.7
AL CPL	218		5	0.3	7.6	6.2	7.2	5.8	7.6
SS CPL	219	2.0	10.7	10.1	10.6	10	10.2	8.9	10.1
AL CPL	219	2.7	9	10.8	9.5	10.5	9.6	10.7	10.0
SS CPL	220		8.5	5.9	9	5.8	8.6	5.7	7.3
AL CPL	220		7.6	8.2	7.6	8.5	7.5	8.7	8.0
SS CPL	221		8.5	8	7.6	8.2	8	8.1	8.1
AL CPL	221		6.2	8.4	6.4	8.7	6	8.7	7.4
SS CPL	222		6.5	7.7	6.6	8.1	6.3	7.4	7.1
AL CPL	222		7	7.4	7.7	7	7.1	6.7	7.2
CPVC	223		153	151	25	23	24	12	12.0
CPVC	224		146	146	18	18	18	9	9.0
CPVC	225		145	142	17	14	15.5	7.75	7.8
CPVC	226		148	147	20	19	19.5	9.75	9.8
CPVC	227		152	150	24	22	23	11.5	11.5
CPVC	228	1.4	143	140	15	12	13.5	6.75	6.8
CPVC	229		149	144	21	16	18.5	9.25	9.3
CPVC	230		144	144	16	16	16	8	8.0
CPVC	231		150	147	22	19	20.5	10.25	10.3
CPVC	232		154	150	26	22	24	12	12.0
CPVC	233		143	142	15	14	14.5	7.25	7.3
CPVC	234		153	153	25	25	25	12.5	12.5
CPVC	235		145	143	17	15	16	8	8.0
CPVC	236		144	147	16	19	17.5	8.75	8.8
CPVC	237		145	143	17	15	16	8	8.0
CPVC	238		145	145	17	17	17	8.5	8.5
CPVC	239		145	146	17	18	17.5	8.75	8.8
CPVC	240		144	142	16	14	15	7.5	7.5
Adh	241		10.2	8.7	10.3	8.3	10	8.6	9.4
Adh	242		9.3	8.9	9.9	8.6	9.4	8.9	9.2
Impact	243		8.6	7.6	9.1	7.4	9.4	7.8	8.3
Impact	244		9.3	8.1	9	8.9	8.4	8.6	8.6
Tabor	245		8.7	8.6	8.9	8.4	8.6	8.3	8.6
Tabor	246		8.4	9.6	8.4	10	8.3	10.2	9.2
		average	8.2	8.6	8.4	8.7	8.4	8.7	8.7

DAILY INSPECTION REPORT-TEST PANEL RECORD (STEEL)	CLIENT: NASA
	JCB NO: H6341
Summary of Work Performed: Applied Devco - Devcon 230 (Repair)	

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	Devco		
Batch Numbers (Record)	A) 230-B-3501 B) 230-C-0910		
Material Temperature/Potlife (Record)	70°		
Correct Thinner/Amount (Record)	None		
Time of Mix (Record)	9:15		
Mix Ratio (Record)	4:1		
Induction Period (Record)	15 min		

APPLICATION

Ambient Conditions (Record)	DB: 74° WB: 64° RH: 58% DP: 59° ST:		
Applicator's Name (Record)	C. Poche		
Surface Prep. to Appl. (Record Time)	15 min		
Compressed Air Cleanliness			
Time Application Began (Record)	9:35		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)	Brush		
Time Application Complete (Record)	9:40		

INSPECTION

Visual Appearance		✓	
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: C. Poche
Date: 8/1/94
Report No.
Page of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT: WRS-1

JCB NO: H6341

Summary of Work Performed: Apply Devco 230 DUBRAV

PRE-SURFACE PREPARATION

Condition of Edges, Weld Spatter, Etc.				
Grease/Oil Removal (Record Solvent)				
Clean Dry Abrasive				
Recycled Abrasive Test				
Nozzle Air Pressure (Record)				
Compressed Air Cleanliness (Record)				

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	Devco 230 DUBRAV	✓	
Batch Numbers (Record)	(A) 904131A (B) 904131A	✓	
Material Temperature/Potlife (Record)	72°F	✓	
Correct Thinner/Amount (Record)	15%	✓	
Time of Mix (Record)	1:22 - 1:22 2:40 3:55 4:20	✓	
Mix Ratio (Record)	4:1 By Volume	✓	
Induction Period (Record)	15 min.	✓	

431022

APPLICATION

Ambient Conditions (Record)	DB: 70°F WB: 54°F RH: 33% DP: 39°F ST: 68°F		
Applicator's Name (Record)	Chris Roche	✓	
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)	1:45 3:00 4:20 6:43	✓	
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)	N/A	✓	
Intercoat Cleanliness	N/A	✓	
Proper Pot Agitation	N/A	✓	
Application Equipment (Record)	Dev/Biss - 3D Cap	✓	
Time Application Complete (Record)	2:38 3:30 4:32 7:26	✓	

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

Ambient Conditions 6:42 DB: 67°F WB: 54°F RH: 41% DP: 43°F ST: 69

REMARKS: Added 5% more thinner than recommended to improve spray application

Inspector: C. Roche
Date: 4 15 194
Report No.
Page of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)	CLIENT: NASA
	JCB NO: H6341
Summary of Work Performed: Apply and coat of 1205 Redux 232	

PRE-SURFACE PREPARATION

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Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	Dux		
Batch Numbers (Record)	A: 904131A / B: 904131A		
Material Temperature/Potlife (Record)	70°F		
Correct Thinner/Amount (Record)	15% 931022		
Time of Mix (Record)	10:55		
Mix Ratio (Record)	4:1 By Volume		
Induction Period (Record)	15 min		

APPLICATION

Ambient Conditions (Record)	DB: 71°F WB: 61°F RH: 56% DP: 54" ST: 65°F
Applicator's Name (Record)	Chris Bickel
Surface Prep. to Appl. (Record Time)	
Compressed Air Cleanliness	
Time Application Began (Record)	11:15
Surrounding Air Cleanliness	
Recoat Times Observed (Record Actual)	N/A
Intercoat Cleanliness	N/A
Proper Pot Agitation	N/A
Application Equipment (Record)	Devil Biss
Time Application Complete (Record)	02:50

INSPECTION

Visual Appearance		
Dry Film Thickness (DFT)	See DFT Tables	
Holiday Test (Record Method)		
Cure Test (Record Method)		

REMARKS: Added 5% more thinner than recommended to improve spray application

Inspector: C. Bickel
Date: 4/14/194
Report No.
Page of

100% DFT Test site for 2500 hours to 430 p.m.

Panel/Tag #	Front	Front	Back
165 SS	PRESS-O-FILM™ F No. <u>165</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>165</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>165</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
170 SS	PRESS-O-FILM™ F No. <u>170</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>170</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>170</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
175 SS	PRESS-O-FILM™ F No. <u>175</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>175</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>175</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
180 SS	PRESS-O-FILM™ F No. <u>180</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>180</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>180</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
185 SS	PRESS-O-FILM™ F No. <u>185</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>185</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>185</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
187 Alum	PRESS-O-FILM™ F No. <u>187</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>187</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>187</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
192 Alum	PRESS-O-FILM™ F No. <u>192</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>192</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>192</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
197 Alum	PRESS-O-FILM™ F No. <u>197</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>197</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>197</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
202 Alum	PRESS-O-FILM™ F No. <u>202</u> Mils. <u>3.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>202</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>202</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
208 Alum	PRESS-O-FILM™ F No. <u>208</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>208</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>208</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
209 Coupled SS	PRESS-O-FILM™ F No. <u>209</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>209</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>209</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
209 Coupled Alum	PRESS-O-FILM™ F No. <u>209</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>209</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>209</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
214 Coupled SS	PRESS-O-FILM™ F No. <u>214</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>214</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>214</u> Mils. <u>1.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
214 Coupled Alum	PRESS-O-FILM™ F No. <u>214</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>214</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>214</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
219 Coupled SS	PRESS-O-FILM™ F No. <u>219</u> Mils. <u>1.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>219</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>219</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
219 Coupled Alum	PRESS-O-FILM™ F No. <u>219</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ F No. <u>219</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ B No. <u>219</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
228 CPVC	PRESS-O-FILM™ No. <u>228</u> Mils. <u>1.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>228</u> Mils. <u>1.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>228</u> Mils. <u>1.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)

date Coatings		Manufacturer's Product Data and Recommendations					
Manufacturer	Surface	Profile	Coats	DFT, ea.	Vol. Solids	Abrasive	Appl
Product	Prep	mils	#	(mid)	%	used	Equip
Devco Coatings Devran 230 polyamide epoxy	SP-10	2	2	4 to 8	71%	Alum. Oxide (24)	B,R,C,A

Panel Numbers		SS=	Alum=		Coupled=		CPVC=		
Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT	
SS	165		4.4	3.8	4.3	4.4	4.2	4.2	#DIV/0!
SS	166		5.7	6.6	5.5	5.1	5.7	5.2	#DIV/0!
SS	167		5.5	3.9	5.3	4.2	5.2	4.3	#DIV/0!
SS	168		3.6	4.7	3.6	4.5	3.8	4.5	#DIV/0!
SS	169		4.3	4.4	4.5	4.6	4.3	4.5	#DIV/0!
SS	170		4.7	4.3	4.9	4.2	4.7	4.2	#DIV/0!
SS	171		4.3	4.5	4.4	4.3	4.6	4.6	#DIV/0!
SS	172		4.4	4.4	3.7	4.3	4.2	4.1	#DIV/0!
SS	173		6.7	6.4	6.7	6.5	6.5	6.3	#DIV/0!
SS	174		3.7	3.0	3.5	2.9	4.0	3.1	#DIV/0!
SS	175		6.3	5.9	6.5	6.8	6.5	5.9	#DIV/0!
SS	176		5.5	5.2	5.3	5.1	5.6	5.4	#DIV/0!
SS	177		3.4	4.4	3.4	4.6	3.8	4.6	#DIV/0!
SS	178		6.9	6.2	6.8	6.2	6.9	6.1	#DIV/0!
SS	179		4.4	4.4	4.1	4.5	4.4	4.2	#DIV/0!
SS	180		5.3	4.0	5.3	4.3	5.7	4.3	#DIV/0!
SS	181		4.1	4.3	4.1	4.1	3.9	3.8	#DIV/0!
SS	182		4.6	4.9	4.6	5.0	4.9	5.0	#DIV/0!
SS	183		4.8	3.9	4.7	3.8	4.6	3.8	#DIV/0!
SS	184		4.5	6.4	4.7	6.2	5.0	6.0	#DIV/0!
SS	185		6.1	4.6	6.1	4.8	6.3	4.9	#DIV/0!
SS	186		4.8	4.5	4.9	4.8	4.8	4.0	#DIV/0!
ALUM	187		5.5	5.6	5.5	5.3	5.6	5.8	#DIV/0!
ALUM	188		5.9	6.0	5.3	5.7	5.3	6.1	#DIV/0!
ALUM	189		5.4	5.6	5.7	5.6	5.5	5.2	#DIV/0!
ALUM	190		5.1	6.3	6.3	6.7	5.1	6.7	#DIV/0!
ALUM	191		4.1	5.2	6.6	5.8	6.9	5.4	#DIV/0!
ALUM	192		4.5	4.0	4.7	4.3	4.7	4.1	#DIV/0!
ALUM	193		6.3	7.4	6.2	7.3	6.4	7.4	#DIV/0!
ALUM	194		4.4	6.3	5.4	5.3	5.4	5.6	#DIV/0!
ALUM	195		6.2	6.4	4.7	5.9	5.8	6.0	#DIV/0!

ORIGINAL PAGE IS
OF POOR QUALITY

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM 196		5.9	5.2	6.2	4.9	6.0	5.1	#DIV/0!
ALUM 197	2.8 3.4	5.5	7.4	5.4	7.7	5.4	7.2	#DIV/0!
ALUM 198		6.7	6.3	6.9	5.9	6.2	5.3	#DIV/0!
ALUM 199		4.5	5.7	4.5	5.7	5.2	5.3	#DIV/0!
ALUM 200		4.7	3.8	5.2	3.8	4.5	4.9	#DIV/0!
ALUM 201		5.6	5.4	5.2	4.4	4.9	5.0	#DIV/0!
ALUM 202	3.4	6.4	7.2	7.7	7.9	7.1	8.8	#DIV/0!
ALUM 203		4.0	5.4	4.3	5.5	4.0	4.7	#DIV/0!
ALUM 204		5.2	6.2	4.7	5.4	4.8	4.9	#DIV/0!
ALUM 205		5.0	4.4	4.9	5.3	4.5	5.0	#DIV/0!
ALUM 206		5.5	4.9	5.4	5.3	5.6	5.7	#DIV/0!
ALUM 207		4.1	5.8	5.0	4.5	5.0	4.1	#DIV/0!
ALUM 208	2.7	4.7	5.7	4.4	5.9	4.4	5.9	#DIV/0!
SS CPL 209	2.3	5.6	6.0	5.5	5.8	5.4	5.8	#DIV/0!
AL CPL 209	2.9	4.4	4.1	3.9	4.6	3.9	3.9	#DIV/0!
SS CPL 210		4.5	5.6	4.3	5.9	4.5	5.4	#DIV/0!
AL CPL 210		5.1	4.8	4.8	4.7	4.8	5.2	#DIV/0!
SS CPL 211		3.9	4.0	3.9	4.0	3.8	4.0	#DIV/0!
AL CPL 211		4.2	4.9	4.5	4.4	4.2	4.5	#DIV/0!
SS CPL 212		4.3	4.7	4.4	4.9	4.2	4.9	#DIV/0!
AL CPL 212		4.6	5.9	4.4	5.7	4.2	5.7	#DIV/0!
SS CPL 213		4.0	4.7	3.7	4.8	3.9	4.8	#DIV/0!
AL CPL 213		4.5	4.7	4.7	4.9	4.6	4.6	#DIV/0!
SS CPL 214	2.0	4.4	4.0	4.3	4.8	5.1	4.4	#DIV/0!
AL CPL 214	2.5	3.5	4.7	3.7	4.9	3.7	4.8	#DIV/0!
SS CPL 215		4.2	3.5	5.4	4.4	4.4	4.2	#DIV/0!
AL CPL 215		5.0	5.4	5.3	5.9	4.4	5.3	#DIV/0!
SS CPL 216		4.9	4.8	4.8	4.5	4.6	4.6	#DIV/0!
AL CPL 216		2.6	3.2	3.4	3.8	3.1	3.4	#DIV/0!
SS CPL 217		3.7	4.8	3.7	4.8	3.8	4.9	#DIV/0!
AL CPL 217		3.3	4.8	3.6	4.9	3.5	4.9	#DIV/0!
SS CPL 218		3.9	4.2	3.5	4.0	3.9	3.9	#DIV/0!
AL CPL 218		3.8	4.4	3.6	4.0	3.6	4.2	#DIV/0!
SS CPL 219	2.0	4.9	3.7	4.7	4.1	5.0	4.0	#DIV/0!
AL CPL 219	2.7	3.5	4.8	3.7	5.1	3.3	4.5	#DIV/0!

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 220		3.6	3.9	3.0	3.9	3.3	4.3	#DIV/0!
AL CPL 220		4.5	3.8	4.9	3.7	4.5	3.8	#DIV/0!
SS CPL 221		3.9	5.4	4.2	5.4	4.1	5.6	#DIV/0!
AL CPL 221		3.9	4.4	4.7	4.7	4.2	4.9	#DIV/0!
SS CPL 222		3.6	4.0	3.9	4.4	4.1	4.8	#DIV/0!
AL CPL 222		4.0	4.0	3.9	4.3	4.1	4.1	#DIV/0!
CPVC 223								#DIV/0!
CPVC 224								#DIV/0!
CPVC 225								#DIV/0!
CPVC 226								#DIV/0!
CPVC 227								#DIV/0!
CPVC 228								#DIV/0!
CPVC 229								#DIV/0!
CPVC 230								#DIV/0!
CPVC 231								#DIV/0!
CPVC 232								#DIV/0!
CPVC 233								#DIV/0!
CPVC 234								#DIV/0!
CPVC 235								#DIV/0!
CPVC 236								#DIV/0!
CPVC 237								#DIV/0!
CPVC 238								#DIV/0!
CPVC 239								#DIV/0!
CPVC 240								#DIV/0!
Adh 241		5.5 ^{5.7}	5.2 ^{4.8}	5.5 ^{5.4}	4.8 ^{5.1}	5.3 ^{5.5}	4.7 ^{4.8}	#DIV/0!
Adh 242		5.8 ^{5.7}	3.5 ^{4.0}	5.8 ^{5.8}	3.5 ^{4.0}	5.9 ^{5.7}	3.7 ^{4.1}	#DIV/0!
Tabor 245 243		5.8	7.2	5.8	6.7	5.5	6.8	#DIV/0!
Tabor 246 244		6.2	5.6	6.6	6.1	6.4	5.8	#DIV/0!
Impact 243 245		5.0	4.1	5.1	4.1	5.0	4.2	#DIV/0!
Impact 244 246		4.8	4.8	5.1	4.6	4.9	4.4	#DIV/0!

Candidate Manufacturer's Product Data and Recommendations								Second Coat
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mil)	Vol. Solids %	Abrasive used	Appl Equip	
Devco Coatings Devran 230 polyamide epoxy	SP-10	2	2	4 to 8	71%	Alum. Oxide (24)	B,R,C,A	

Panel Numbers SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 165	-	7.7	8.4	7.7	8.2	7.9	8.2	#DIV/0!
SS 166	-	8.3	9.1	9.7	9.4	10.8	9.4	#DIV/0!
SS 167	-	8.0	8.8	8.3	8.4	8.5	8.7	#DIV/0!
SS 168	-	6.8	7.8	6.6	7.2	6.9	7.2	#DIV/0!
SS 169	6.3	7.0	7.0	6.9	6.7	7.1		#DIV/0!
SS 170	8.6	7.9	8.9	7.9	9.2	8.1		#DIV/0!
SS 171	-	7.9	8.2	7.8	7.7	7.8	7.2	#DIV/0!
SS 172	-	7.1	8.4	6.8	7.5	7.4	7.9	#DIV/0!
SS 173	-	10.0	9.6	10.1	10.0	10.2	10.0	#DIV/0!
SS 174	-	8.0	7.4	8.1	7.6	8.2	7.3	#DIV/0!
SS 175	-	7.2	9.6	10.0	8.9	9.6	9.0	#DIV/0!
SS 176	-	9.2	9.0	8.6	8.7	9.2	9.5	#DIV/0!
SS 177	-	7.5	8.1	7.6	7.5	8.9	8.1	#DIV/0!
SS 178	-	10.1	9.6	10.1	9.7	10.2	9.7	#DIV/0!
SS 179	-	7.9	8.6	8.1	8.1	8.4	8.2	#DIV/0!
SS 180	-	9.0	8.5	9.4	8.3	9.3	8.5	#DIV/0!
SS 181	-	8.4	7.5	8.6	8.3	8.8	7.7	#DIV/0!
SS 182	-	8.0	8.7	7.3	8.8	6.2	7.8	#DIV/0!
SS 183	-	8.3	9.5	7.9	9.4	8.3	8.9	#DIV/0!
SS 184	-	7.2	9.6	7.8	10.2	7.1	9.8	#DIV/0!
SS 185	10.2	11.2	12.0	10.3	10.7	9.7	8.7	#DIV/0!
SS 186	-	8.5	8.9	8.3	8.5	8.1	8.8	#DIV/0!
ALUM 187	-	9.5	9.1	9.2	10.5	9.7	9.1	#DIV/0!
ALUM 188	-	8.2	8.5	8.4	8.3	8.2	8.1	#DIV/0!
ALUM 189	-	9.8	8.9	9.8	8.7	9.4	8.7	#DIV/0!
ALUM 190	-	8.2	7.2	7.7	8.9	8.0	8.8	#DIV/0!
ALUM 191	-	10.0	7.7	9.8	9.4	9.9	6.8	#DIV/0!
ALUM 192	-	8.4	6.4	6.5	6.2	7.7	8.1	#DIV/0!
ALUM 193	-	9.2	9.8	9.8	10.0	9.8	10.0	#DIV/0!
ALUM 194	-	10.8	8.8	9.5	7.7	10.6	8.0	#DIV/0!
ALUM 195	-	7.7	8.4	8.2	8.6	8.0	8.5	#DIV/0!

Back
side
of
panel 186

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT	
ALUM	196	-	8.4	8.5	8.3	8.3	9.9	9.4	#DIV/0!
ALUM	197	-	7.3	9.9	7.4	10.6	8.1	11.5	#DIV/0!
ALUM	198	-	9.5	8.8	9.9	8.8	8.9	10.1	#DIV/0!
ALUM	199	-	9.1	9.7	9.5	9.6	9.8	9.7	#DIV/0!
ALUM	200	-	7.7	8.1	8.1	7.9	7.9	8.3	#DIV/0!
ALUM	201	-	11.1	9.2	10.9	9.2	11.1	9.5	#DIV/0!
ALUM	202	-	10.1	10.7	11.3	11.8	10.8	11.8	#DIV/0!
ALUM	203	-	5.9	7.7	6.7	8.2	7.4	6.5	#DIV/0!
ALUM	204	-	7.9	9.0	7.9	8.6	7.7	8.4	4.8
ALUM	205	-	8.9	8.3	8.7	8.2	9.1	8.3	#DIV/0!
ALUM	206	-	8.4	8.7	8.4	8.3	9.0	8.2	#DIV/0!
ALUM	207	-	7.0	8.6	7.5	7.4	7.6	7.7	#DIV/0!
ALUM	208	-	7.2	8.3	7.1	9.4	9.2	10.1	#DIV/0!
SS CPL	209	-	9.2	10.6	7.9	10.6	9.2	11.1	#DIV/0!
AL CPL	209	-	8.7	8.2	7.2	8.7	9.1	8.9	#DIV/0!
SS CPL	210	-	7.9	9.0	7.6	8.6	7.6	8.9	#DIV/0!
AL CPL	210	-	7.9	8.3	7.5	9.7	8.3	9.5	#DIV/0!
SS CPL	211	-	5.3	6.8	6.2	6.6	5.9	7.3	#DIV/0!
AL CPL	211	-	6.7	8.8	7.6	7.8	7.3	7.9	#DIV/0!
SS CPL	212	-	6.3	10.6	6.2	11.0	6.2	10.9	#DIV/0!
AL CPL	212	-	7.3	7.4	7.3	7.1	6.9	8.1	#DIV/0!
SS CPL	213	-	9.5	9.9	8.8	9.9	9.5	9.5	#DIV/0!
AL CPL	213	-	7.3	8.8	7.8	7.4	7.6	7.4	#DIV/0!
SS CPL	214	-	8.6	8.8	8.4	9.1	8.9	9.2	#DIV/0!
AL CPL	214	-	10.1	10.5	10.1	10.2	10.0	10.4	#DIV/0!
SS CPL	215	-	7.1	7.4	7.6	7.4	7.4	7.3	#DIV/0!
AL CPL	215	-	8.2	11.4	8.0	10.7	8.1	11.2	#DIV/0!
SS CPL	216	-	8.1	8.0	8.5	9.1	8.1	8.7	#DIV/0!
AL CPL	216	-	7.0	6.5	6.5	6.1	5.8	6.2	#DIV/0!
SS CPL	217	-	7.1	8.1	7.1	9.1	7.6	8.9	#DIV/0!
AL CPL	217	-	6.6	8.8	6.9	8.7	5.5	8.7	#DIV/0!
SS CPL	218	-	6.6	6.9	6.3	6.8	6.4	6.9	#DIV/0!
AL CPL	218	-	5.3	7.6	6.2	7.2	5.8	7.6	#DIV/0!
SS CPL	219	-	10.7	10.1	10.6	10.0	10.2	8.7	#DIV/0!
AL CPL	219	-	9.0	10.8	9.5	10.5	9.6	10.7	#DIV/0!

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 220	-	8.5	5.9	9.0	5.8	8.6	5.7	#DIV/0!
AL CPL 220	-	7.6	8.2	7.6	2.5	7.5	2.7	#DIV/0!
SS CPL 221	-	8.5	2.0	7.5	2.2	2.0	2.1	#DIV/0!
AL CPL 221	-	6.2	8.4	8.4	2.7	6.0	2.7	#DIV/0!
SS CPL 222	-	6.5	7.7	6.6	8.1	6.2	7.4	#DIV/0!
AL CPL 222	-	7.0	7.4	7.7	7.0	7.1	6.7	#DIV/0!
CPVC 223								#DIV/0!
CPVC 224								#DIV/0!
CPVC 225								#DIV/0!
CPVC 226								#DIV/0!
CPVC 227								#DIV/0!
CPVC 228								#DIV/0!
CPVC 229								#DIV/0!
CPVC 230								#DIV/0!
CPVC 231								#DIV/0!
CPVC 232								#DIV/0!
CPVC 233								#DIV/0!
CPVC 234								#DIV/0!
CPVC 235								#DIV/0!
CPVC 236								#DIV/0!
CPVC 237								#DIV/0!
CPVC 238								#DIV/0!
CPVC 239								#DIV/0!
CPVC 240								#DIV/0!
Adh 241	-	10.2	8.7	10.2	8.2	10.2	8.6	#DIV/0!
Adh 242	-	9.3	8.3	9.9	8.6	9.4	8.9	#DIV/0!
Impact 243	8.6	7.6	9.1	7.4	9.4	7.8		#DIV/0!
Impact 244	-	9.3	8.1	9.0	8.9	8.4	2.6	#DIV/0!
Impact 245	-	8.7	8.6	8.9	8.1	8.6	8.3	#DIV/0!
Impact 246	-	7.1	7.5	8.4	10.0	2.3	10.2	#DIV/0!

System # 4 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Applicate Equip*
Carboline Carbomastic 15 polyamine alum. epoxy	(SP-10)	1-3	1	7 to 10	90%	Alum. Oxide (24)	B,R,C,A
Carboline 890 amine epoxy	SP-1	-	1	4 to 6	75%	-	B,R,C,A

Panel Numbers SS=247-268

Alum= 269-290

Coupled= 291-304

CPVC=305-322

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	247	2.3	16.2	14.8	15.7	14.7	15.7	15.2	15.4
SS	248		14	15.3	13.9	15	14	14.1	14.4
SS	249		15	11.4	14.9	10.9	15.8	11.7	13.3
SS	250		17	15.5	17	14.5	16.8	15.3	16.0
SS	251		15.4	14.7	14.8	15.7	15	14.5	15.0
SS	252	2.1	14.3	13.8	13.9	13.7	13.8	13.5	13.8
SS	253		15.2	13.7	14.9	13.9	15.5	13.8	14.5
SS	254		15.3	14.3	15.3	14.4	14.8	14.2	14.7
SS	255		16.5	16	16.9	15.8	17	15.2	16.2
SS	256		18.5	18.5	18.9	19.2	18.7	19.6	18.9
SS	257	2.0	18.4	16.9	18.3	16.4	18.2	16.5	17.5
SS	258		14.7	12.6	16.2	12.6	16.4	13	14.3
SS	259		16.7	14.6	16.9	14.6	16.5	14.5	15.6
SS	260		13	16	13.2	16.4	12.4	16.2	14.5
SS	261		12.9	12.4	13.3	12.7	13	12.3	12.8
SS	262	2.1	20.4	16.7	20.7	16.8	20.7	16.3	18.6
SS	263		16.5	16.1	16.8	16.3	16.6	16.2	16.4
SS	264		14.5	13.7	14.5	13.3	14.7	13.5	14.0
SS	265		14	12.7	14	11.9	13.5	12.5	13.1
SS	266		15.6	14.7	15.5	14.3	15.2	14.1	14.9
SS	267	2.1	12.4	12.9	12.6	12.3	12.9	12.6	12.6
SS	268		14	13	13.9	12.8	14.2	13.5	13.6
ALUM	269	2.8	13.7	14.8	13.9	14.4	13.9	13.7	14.1
ALUM	270		18	15.7	17.6	15.7	17.7	15	16.6
ALUM	271		17	13.6	17.3	13.5	16.8	14.3	15.4
ALUM	272		17.4	16	17.7	16	17.6	16.5	16.9
ALUM	273		14.5	14.7	14.6	14.6	14.6	14.6	14.6
ALUM	274	3.2	19.8	14.4	20.2	15.1	19.7	15.6	17.5
ALUM	275		16.7	13.5	16.6	13.8	16.7	14.6	15.3
ALUM	276		16.6	15.4	16.3	14.6	16.3	14.5	15.6
ALUM	277		15.2	12	14.9	11.8	15.3	12	13.5
ALUM	278		16.6	13.8	16.7	14.3	16.5	13.9	15.3
ALUM	279	2.6	14.9	14.7	14.6	14.7	15.1	14.7	14.8
ALUM	280		19	13.8	18.9	14.5	18.4	14.5	16.5
ALUM	281		16.3	14.3	16.1	13.9	15.8	14.4	15.1
ALUM	282		15.8	13.8	15	14.3	15.3	13.4	14.6
ALUM	283		14.1	11.7	13.9	11.5	13.9	11.9	12.8
ALUM	284		19.2	17.8	19.3	17.1	18.8	17.2	18.2
ALUM	285	2.9	14.6	13	14.8	13.3	15.2	13.5	14.1
ALUM	286		14.9	12.9	15	12.7	15	12.8	13.9
ALUM	287		15.7	14.4	15.6	13.9	15.6	13.8	14.8
ALUM	288		13.8	16.8	14	16.4	14	17.2	15.4
ALUM	289		17	16.2	16.3	16	16.3	16.2	16.3

ALUM	290	2.9	14.6	14.8	14.8	14.7	14.7	15.2	14.8
SSCPL	291		17.5	18.3	17.5	18	16.5	18.5	17.7
AL CPL	291		13.8	13.4	12.8	13.6	13.8	12.8	13.4
SSCPL	292		16.3	15.2	16.1	14.7	16.2	16.1	15.8
AL CPL	292		17.7	14.5	18.6	14.1	18	14.2	16.2
SSCPL	293		14.4	14.3	14.3	14.4	14.4	14	14.3
AL CPL	293		13.4	12.3	12.8	12.7	13	12.8	12.8
SSCPL	294	1.6	16.2	16.4	16	16.1	16.1	17	16.3
AL CPL	294	2.1	15.9	13.7	15.8	13.5	15.6	14	14.8
SSCPL	295		15.3	15.3	15.1	15	14.8	15.5	15.2
AL CPL	295		14.4	12.3	13.6	11.5	14.2	11.6	12.9
SSCPL	296		19.9	15.8	19.6	15.7	18.7	16	17.6
AL CPL	296		13.5	13.2	13.1	12.9	13.4	13.4	13.3
SSCPL	297	2.1	12.3	13.1	12.4	13.8	13.3	13	13.0
AL CPL	297	3.0	14.1	14.9	14.6	15.1	14.8	14.9	14.7
SSCPL	298		16.1	13.8	16.2	13.8	16.7	13.9	15.1
AL CPL	298		13.5	15.4	13.2	14.6	13.3	14.9	14.2
SSCPL	299		14	16	14.7	16	15	15.9	15.3
AL CPL	299		12.8	14.2	13	13.2	13.4	14.6	13.5
SSCPL	300	1.7	16.5	14.6	16.4	14.7	16.5	14.5	15.5
AL CPL	300	2.0	13.1	17.1	12.9	16.9	12.9	16.1	14.8
SSCPL	301		16.5	14.6	16.6	14.5	17.2	14.5	15.7
AL CPL	301		14.4	14.8	14.1	13.6	13.9	14.1	14.2
SSCPL	302		14.1	13.6	14.5	13.9	14.6	13.4	14.0
AL CPL	302		14.2	17.7	13.4	19.3	14	18.3	16.2
SSCPL	303		14.5	13.9	15	14.3	14.8	14.5	14.5
AL CPL	303		14.5	14.5	15	13.8	15	13.8	14.4
SSCPL	304		15.1	14	14.4	14.9	15.1	13.9	14.6
AL CPL	304		12.9	17.3	12.8	17.4	13.1	17.5	15.2
CPVC	305		150	157	22	29	25.5	12.75	12.8
CPVC	306		157	154	29	26	27.5	13.75	13.8
CPVC	307		156	158	28	30	29	14.5	14.5
CPVC	308		160	156	32	28	30	15	15.0
CPVC	309		162	157	34	29	31.5	15.75	15.8
CPVC	310		157	159	29	31	30	15	15.0
CPVC	311	1.8	159	151	31	23	27	13.5	13.5
CPVC	312		159	153	31	25	28	14	14.0
CPVC	313		157	153	29	25	27	13.5	13.5
CPVC	314		161	153	33	25	29	14.5	14.5
CPVC	315		158	158	30	30	30	15	15.0
CPVC	316		159	159	31	31	31	15.5	15.5
CPVC	317		151	154	23	26	24.5	12.25	12.3
CPVC	318		149	153	21	25	23	11.5	11.5
CPVC	319		157	158	29	30	29.5	14.75	14.8
CPVC	320		159	154	31	26	28.5	14.25	14.3
CPVC	321		158	161	30	33	31.5	15.75	15.8
CPVC	322		160	152	32	24	28	14	14.0
Adh	323		13.4	10.3	14	11	13.7	10.5	12.2
Adh	324		11.4	12	12.1	12	11.8	12.5	12.0
Tabor	325		11.6	10.6	12.1	10.1	12.1	10.6	11.2
Tabor	326		17	11.7	16.7	11.3	16.8	11.7	13.6
Impact	327		17.1	14.6	17.3	14.7	16.3	15.1	15.9
Impact	328		15.7	14.5	16.2	14.6	15.6	14	15.1

average 15.5 14.6 15.4 14.5 15.5 14.6 14.8

VOC

SELECTION DATA

GENERIC TYPE: Two-component, high-build, modified aluminum epoxy mastic.

GENERAL PROPERTIES: CARBOMASTIC 15 Low Odor is a self-priming, high-build coating with excellent adhesion to rusted steel and most aged paints. Features include:

- Proven field performance.
- Excellent performance over minimal surface preparations.
- Low odor.
- Non-bronzing.
- Excellent application characteristics.
- Excellent film build on edges.
- Compatible with most aged coatings.
- Single coat for most applications.
- Meets the most stringent VOC (Volatile Organic Content) regulations.

RECOMMENDED USES: Particularly recommended for maintenance painting of rusty steel or upgrading old coatings. Ideal for metal buildings, piping, process equipment, highway bridges and exposed structural steel. Only a single coat is required for most applications. Hand or power tool cleaning is often acceptable. CARBOMASTIC 15 Low Odor may also be used where hand tool cleaned steel is being coated for the first time.

NOT RECOMMENDED FOR: Immersion service in acids, alkalis or solvents.

TYPICAL CHEMICAL RESISTANCE:

Exposure	Immersion	Splash & Spillage	Fumes
Acids	NR	Fair	Very Good
Alkalies	NR	Good	Excellent
Solvents	NR	Good	Excellent
Salt Water	Excellent*	Excellent	Excellent
Water	Excellent*	Excellent	Excellent

*Discolors to gray.

TEMPERATURE RESISTANCE: (non-immersion)

Continuous: 180° F (82° C)

Non-continuous: 250° F (121° C)

SUBSTRATES: Rusty steel, aged galvanized steel or others as recommended.

COMPATIBLE COATINGS: May be used over most generic types of coatings which are tightly adhering and properly prepared. A test patch is recommended over existing coatings. A mist coat may be required over inorganic zinc to minimize bubbling. A topcoat is not normally required. Most generic types of coatings are suitable as topcoat. Consult Carboline Technical Service for specific recommendations.

SPECIFICATION DATA

THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:

	By Volume
CARBOMASTIC 15 Low Odor	90% ± 2%

VOLATILE ORGANIC CONTENT:

As Supplied: 0.74 lbs./gal. (85 grams/liter)

Thinned: The following are nominal values:

Thinner	% Thinned	Fluid Ozs./Gal.	Lbs./Gal.	Grams/Liter
CARBOMASTIC Thinner	25	32 (1 quart)	2.02	242
CARBOLINE® Thinner #76	25	32 (1 quart)	1.93	231

RECOMMENDED DRY FILM THICKNESS PER COAT:

5 mils (125 microns) minimum (Measured excluding the rust on steel substrate).

For severe exposures including immersion, 7 mils (175 microns) minimum or 2 coats at 5 mils (125 microns) each is recommended.

Dry film thickness in excess of 10 mils (250 microns) per coat is not recommended. Excessive film thickness over inorganic zinc will increase damage during shipping and erection.

THEORETICAL COVERAGE PER MIXED GALLON:

1444 sq. ft. (36.0 sq. m) at 25 microns

289 sq. ft. at 5 mils (7.2 sq. m) at 125 microns

STORAGE CONDITIONS: Store Indoors

Temperature: 45-110° F (7-43° C)

Humidity: 0-90%

SHELF LIFE: Twenty-four months when stored at 75° F (24° C).

COLOR: Aluminum (C901) is standard. Red (M500) is available for use as a contrasting primer in multiple coat applications.

ORDERING INFORMATION

Prices may be obtained from your Carboline Sales Representative or Carboline Customer Service Department.

APPROXIMATE SHIPPING WEIGHT:

	2 Gal. Kit	10 Gal. Kit
CARBOMASTIC 15 Low Odor	25 lbs. (11 kg)	124 lbs. (56 kg)
CARBOMASTIC Thinner	8 lbs. (4 kg)	40 lbs. (18 kg)
	in 1's	in 5's
CARBOLINE Thinner # 76	8 lbs. (4 kg)	37 lbs. (17 kg)
	in 1's	in 5's

FLASH POINT: (Pensky-Martens Closed Cup)

CARBOMASTIC 15 Low Odor Part A >200° F (> 93° C)

CARBOMASTIC 15 Low Odor Part B 76° F (24° C)

CARBOMASTIC Thinner 83° F (28° C)

CARBOLINE Thinner # 76 21° F (- 6° C)

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To the best of our knowledge the technical data contained herein are true and accurate as the date of issuance and are subject to change without prior notice. Users must contact Carboline Company to verify correctness before specifying or ordering. No warranties of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability if any is limited to replacement of products. Prices and conditions of sale are subject to change without prior notice. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY OR BY OPERATION OF LAW, OF OTHER AIDS INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ORIGINAL PAGE IS
OF POOR QUALITY

SURFACE PREPARATION: Remove any oil or grease from surface to be coated with clean rags soaked in CARBOLINE Thinner #2 or Surface Cleaner #3 (refer to SC#3 instructions) in accordance with SSPC-SP 1.

Steel:

NON-IMMERSION SERVICE: Power Tool or Hand Tool clean in accordance with SSPC-SP 3 or SSPC-SP 2, to produce a rust-scale free surface. Water blasting, followed by Hand or Power Tool cleaning is acceptable to standards as defined by SSPC-SP 2. For more severe environments, abrasive blast per SSPC-SP 7 (brush-off blast) to a degree of cleanliness defined by SSPC-Sa 1 pictorial standards.

WATER IMMERSION SERVICE: Abrasive blast to a Near White Metal Finish in accordance with SSPC-SP 10 (or NACE #2) to obtain a 1-3 mil (25-75 micron) blast profile.

MIXING: Power mix separately, then combine and mix in the following proportions:

	2 Gal. Kit	10 Gal. Kit
CARBOMASTIC 15 Low Odor Part A	1 gallon	5 gallons
CARBOMASTIC 15 Low Odor Part B	1 gallon	5 gallons

THINNING: May be thinned up to 25% by volume with CARBOMASTIC Thinner. To extend pot life, may be thinned up to 25% by volume with CARBOLINE Thinner #76 (see Pot Life information).

NOTE: Use of thinners other than those supplied or approved by Carboline may adversely affect product performance and will void product warranty, whether express or implied.

Refer to Specification Data for VOC information.

POT LIFE: Four hours at 75° F (24° C) when thinned 25%, two hours at 75° F (24° C) unthinned and one hour at 90° F (32° C) unthinned. CARBOLINE Thinner #76 may be substituted to extend pot life to 2 hours at 90° F (32° C). Pot life ends when coating becomes too viscous to use.

APPLICATION CONDITIONS:

	Material	Surfaces	Ambient	Humidity
Normal	65-85° F (18-29° C)	65-85° F (18-29° C)	65-85° F (18-29° C)	35-80%
Minimum	50° F (10° C)	50° F (10° C)	50° F (10° C)	0%
Maximum	90° F (32° C)	130° F (54° C)	100° F (38° C)	95%

Do not apply when surface temperature is less than 5° F or 2° C above the dew point.

Special thinning and application techniques may be required above or below normal conditions.

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSKIPPING SHOES.

SPRAY: The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Conventional: Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .080" I.D. fluid tip and appropriate air cap.

Airless:

Pump Ratio: 30:1 (min.)
GPM Output: 3.0 (min.)
Material Hose: 3/8" I.D. (min.)
Tip Size: .019-.025"
Output psi: 1900-2100
Filter Size: 60 mesh

*Teflon packings are recommended and are available from the pump manufacturer.

BRUSH OR ROLLER: Use clean natural bristled brush or medium nap roller. Work coating into all irregularities.

TOUCH-UP: For small damaged areas, hand or power sand to a featheredge, then touch-up by brush.

DRYING TIMES: These times are at 5 mils (125 microns) dry film thickness. Higher film thicknesses will lengthen cure times.

Dry to touch: 5 hours at 75° F (24° C).

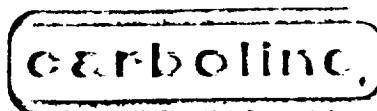
Temperature	Between Coats	Final Cure
50° F (10° C)	5 days	15 days
60° F (16° C)	3 days	10 days
75° F (24° C)	24 hours	5 days
90° F (32° C)	18 hours	3 days

Recommended minimum cure before immersion service is 5 days at 75° F (24° C).

VENTILATION & SAFETY: When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. In addition to proper ventilation, fresh air respirators or fresh air hoods must be used by all application personnel. Where flammable solvents exist, explosion-proof lighting equipment must be used. Hypersensitive persons should wear clean protective clothing, gloves and or protective cream on face, hands and all exposed areas.

CLEANUP: Use CARBOLINE Thinner #2.

CAUTION: READ AND FOLLOW ALL CAUTION STATEMENTS ON THIS PRODUCT DATA SHEET AND ON THE MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.



301 Hensley Industrial Circle • St. Louis, MO 63144-1159
 Tel: (314) 444-1159 • Telex: 444441

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SECTION I - PRODUCT: CARBOMASTIC 15 LOW ODOR PT. A (0185A1NL)
Date: 09/07/93 Replaces 03/25/92 - VLF

C. MTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

CHEMICAL NAME	(A)	(B)	(C)	(D)	(E)
EPOXY RESIN	25068-38-6	55%	NE	NE	NE
ALUMINUM	7429-90-5	20%	15mg/m3	NE	NE

CHEMICAL NAME	HAZARDOUS INGREDIENTS (F)	ADDITIONAL DATA (G)
EPOXY RESIN	11.4G/KG RAT, ORAL >20ML/KG RABBIT, SKIN	NO/NO/1,2
ALUMINUM	NOT AVAILABLE	NO/YES

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F) TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/SARA 311-312 CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: D2B
HMIS/NFPA CLASSIFICATION: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1,
PERSONAL PROTECTION CODE E, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: N/A. VAPOR DENSITY: N/A EVAPORATION RATE: N/A VOLATILE BY WEIGHT 0 %. VOLATILE BY VOLUME: 0 %. PRODUCT WT/GAL: 10.3 LBS/U.S.GAL. 1.24 sp gr. VOC (MIXED PRODUCT THINNED TO MAXIMUM LEVEL): 2.0 LBS/U.S.GAL. 242 gm/lr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 201 F(93C) (Setaflash) LEL: N/A

EL: N/A
SHA-COMBUSTIBLE LIQUID/CLASS-IIIB, DOT-NOT REGULATED, CANADIAN TDGA: NOT REGULATED

EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

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SECTION V - HEALTH HAZARD DATA:

INHALATION: May cause nose and throat irritation.
CONTACT: May cause eye irritation. May cause skin irritation. May cause allergic skin reaction.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If sensitized to amines, epoxies or other chemicals do not use. See a physician if a medical condition exists.
PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
EYE CONTACT: Flush with water for 15 minutes.
SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Flammable equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved air-purifying respirator.
VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).
SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety

PRODUCT: CARBOMASTIC 15 LOW ODOR PT. A (0185A1NL)
Date: 09/07/93 Replaces 03/25/92 - VLF

glasses with side shields or chemical goggles to avoid skin and eye contact.
** material penetrates to skin, change gloves and clothing.
HYGIENIC PRACTICES: Wash with soap and water before eating, drinking,
applying cosmetics, or using toilet facilities. Use of a hand cleaner is
recommended. Launder contaminated clothing before reuse. Leather shoes can
absorb and pass through hazardous materials. Check shoes carefully after
soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat,
sparks, open flame, and strong oxidizing agents. Keep containers closed.
Store in cool, dry place with adequate ventilation. If pouring or
transferring materials, ground all containers and tools.
OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty
containers.

The information contained herein is, to the best of our knowledge and belief
accurate. However, since the conditions of handling and use are beyond our
control, we make no guarantee of results, and assume no liability for damages
incurred by use of this material. It is the responsibility of the user to
comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY

Non-Hazardous Materials above 1 Percent: Date: 09/07/93 Replaces 03/25/91 - VLF

N	CAS	Pct
POLYSTYRENE	NE	25%
EPOXY PLASTICIZER	115-86-6	15%

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SECTION I - PRODUCT: CARBOMASTIC 15 LOW ODOR PT B (0185B1NL)
Date: 09/07/93 Replaces 03/25/92 - VLF

CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

CHEMICAL NAME	(A)	(B)	(C)	(D)	(E)
MICA	12001-26-2	45%	3mg/m3	NE	NE
SILICA	14808-60-7	20%	0.1MG/M3	NE	NE
ALIPHATIC POLYAMINE	NA	15%	NE	NE	NE
XYLENE	1330-20-7	10%	100 PPM	150 PPM	NE
SILICA AMORPHOUS	7631-86-9	5%	2.5mppcf	2.5mppcf	NE
TOLUENE	108-88-3	5%	100 PPM	150 PPM	NE
PM ACETATE	108-65-6	5%	NE	NE	NE

CHEMICAL NAME	HAZARDOUS INGREDIENTS (F)	ADDITIONAL DATA	(G)
MICA	NOT AVAILABLE		NO/NO
SILICA	NOT AVAILABLE		NO/NO
ALIPHATIC POLYAMINE	NOT AVAILABLE		NO/NO/NR
XYLENE	4300MG/KG RAT, ORAL 15000 PPM/4HRS RAT, INHALATION		NO/YES/1, 2, 3
SILICA AMORPHOUS	NOT AVAILABLE		NO/NO
TOLUENE	2500 MG/KG RAT, ORAL 18000 PPM/4HRS RAT, INHALATION		NO/YES/1, 2, 3
PM ACETATE	NOT AVAILABLE		NO/NO/1, 2, 3

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F) TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312 CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

W. IS CLASSIFICATION: B2 -- D2A -- D2B
HMIS/NFPA CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 1,
PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: 232F(111C)-300F(148C). VAPOR DENSITY: Heavier than air.
EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 11 %. VOLATILE BY VOLUME: 20 %. PRODUCT WT/GAL: 13.0 LBS/U.S.GAL. 1.56 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 76 F(24C) (Setaflash) LEL 1.0 %
UEL 7.1 %
OSHA-PAINT/CLASS/3/UN1263/PGIII, DOT-PAINT, CLASS 3, UN1263, PGIII, CANADIAN
TDGA: PAINT, CLASS 3, UN1263, PG III

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EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will cumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation.
CONTACT: May cause eye burns. May cause skin burns. May cause allergic skin reaction.
NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on duration and level of exposure. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If sensitized to amines, epoxies or other chemicals do not use. See a physician if a medical condition exists.
PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
EYE CONTACT: Flush with water for 15 minutes.
SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain

and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved air-purifying respirator.
VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).
SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing.
HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.
OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

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Non-Hazardous Materials above 1 Percent:

Name	CAS	Pct
BENZYL ALCOHOL	100-51-6	15%
POLYSTYRENE	NE	5%
DROCARBON RESIN	NE	5%
DROCARBON RESIN	NE	5%

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SELECTION DATA

GENERIC TYPE: Two component, cross-linked epoxy.

GENERAL PROPERTIES: CARBOLINE 890 is a high solids, high gloss, high build epoxy topcoat that can be applied by spray, brush, or roller. The cured film provides a tough, cleanable and esthetically pleasing surface. Available in a wide variety of clean, bright colors. Features include:

- Good flexibility and lower stress upon curing than most epoxy coatings.
- Very good weathering resistance for a high gloss epoxy.
- Very good abrasion resistance.
- Excellent performance in wet exposures.
- Meets the most stringent VOC (Volatile Organic Content) regulations.

RECOMMENDED USES: Recommended where a high performance, attractive, chemically resistant epoxy topcoat is desired. Offers outstanding protection for interior floors, walls, piping, equipment and structural steel or as an exterior coating for tank farms, railcars, structural steel and equipment in various corrosive environments. Recommended industrial environments include Chemical Processing, Offshore Oil and Gas, Food Processing and Pharmaceutical, Water and Waste Water Treatment, Pulp and Paper, Power Generation among others. May be used as a two coat system direct to metal or concrete for Water and Municipal Waste Water immersion. CARBOLINE 890 has been accepted for use in areas controlled by USDA regulations for incidental food contact. Consult Carboline Technical Service Department for other specific uses.

NOT RECOMMENDED FOR: Strong acid or solvent exposures, or immersion service other than recommended.

TYPICAL CHEMICAL RESISTANCE:

Exposure	Immersion	Splash and Spillage	Fumes
Acids	NR	Very Good	Very Good
Alkalies	NR	Excellent	Excellent
Solvents	NR	Very Good	Excellent
Salt Solutions	Excellent	Excellent	Excellent
Water	Excellent	Excellent	Excellent

*NR = Not recommended

TEMPERATURE RESISTANCE:

Continuous: 200° F (93° C)
Non-continuous: 250° F (121° C)

At 300° F, coating discoloration and loss of gloss is observed, without loss of film integrity.

SUBSTRATES: Apply over suitably prepared metal, concrete, or other surfaces as recommended.

COMPATIBLE COATINGS: May be applied directly over inorganic zincs, weathered galvanizing, catalyzed epoxies, phenolics or other coatings as instructed. A test patch is recommended before use over existing coatings. May be used as a tiecoat over inorganic zincs. A mist coat of CARBOLINE 890 is required when applied over inorganic zincs to minimize bubbling. May be topcoated to upgrade weathering resistance. Not recommended over chlorinated rubber or latex coatings. Consult Carboline Technical Service Department for specific recommendations.

April 91 Replaces Oct. 90

SPECIFICATION DATA

THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:*

By Volume

CARBOLINE 890

75% ± 2%

VOLATILE ORGANIC CONTENT:*

As Supplied: 1.78 lbs./gal. (214 gm liter)

Thinned: The following are nominal values utilizing:

CARBOLINE Thinner # 2 (spray application)

% Thinned	Fluid Ounces/Gal.	Pounds/Gallon	Grams/Liter
10%	12.8	2.26	271
12%	16	2.38	285

CARBOLINE Thinner #33 (brush & roller application)

*Varies with color

RECOMMENDED DRY FILM THICKNESS PER COAT:

4-6 mils (100-150 microns).

5-7 mils (125-175 microns) DFT for a more uniform gloss over inorganic zincs.

Dry film thicknesses in excess of 10 mils (250 microns) per coat are not recommended. Excessive film thickness over inorganic zinc may increase damage during shipping or erection.

THEORETICAL COVERAGE PER MIXED GALLON:

1203 sq. ft. (30 sq. m/l at 25 microns)

241 sq. ft. at 5 mils (6.0 sq. m/l at 125 microns)

Mixing and application losses will vary and must be taken into consideration when estimating job requirements.

STORAGE CONDITIONS:

Store Indoors
Temperature: 40-110° F (4-43° C)
Humidity: 0-100%

SHELF LIFE: Twenty-four months minimum when stored at 75° F (24° C).

COLORS: Available in Carboline Color Chart colors. Some colors may require two coats for adequate hiding. Colors containing lead or chrome pigments are not USDA acceptable. Consult your local Carboline representative or Carboline Customer Service for availability.

* See notice under DRYING TIMES.

GLOSS: High gloss (Epoxies lose gloss and eventually chalk in sunlight exposure).

ORDERING INFORMATION

Prices may be obtained from your local Carboline Sales Representative or Carboline Customer Service Department.

APPROXIMATE SHIPPING WEIGHT:

	2 Gal. Kit	10 Gal. Kit
CARBOLINE 890	29 lbs. (13 kg)	145 lbs. (66 kg)
THINNER #2	8 lbs. in 1's (4 kg)	39 lbs. in 5's (18 kg)
THINNER #33	9 lbs. in 1's (4 kg)	45 lbs. in 5's (20 kg)

FLASHPOINT: (Pensky-Martens Closed Cup)

CARBOLINE 890 Part A	73° F (23° C)
CARBOLINE 890 Part B	71° F (22° C)
THINNER #2	24° F (-5° C)
THINNER #33	98° F (37° C)

To the best of our knowledge, the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices and conditions of shipment are subject to change without prior notice. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE EXPRESS OR IMPLIED STATUTORY OR COMMON LAW OR OTHERWISE INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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CARBOLINE® 890

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

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SURFACE PREPARATION: Remove oil or grease from surface to be coated with clean rags soaked in CARBOLINE Thinner #2 or Surface Cleaner #3 (refer to Surface Cleaner #3 instructions) in accordance with SSPC-SP 1.

Steel: Normally applied over clean, dry recommended primers. May be applied directly to metal. For immersion service, abrasive blast to a minimum Near White Metal Finish in accordance with SSPC-SP10, to a degree of cleanliness in accordance with NACE #2 to obtain a 1.5-3 mil (40-75 micron) blast profile. For non-immersion, abrasive blast to a Commercial Grade Finish in accordance with SSPC-SP6, to a degree of cleanliness in accordance with NACE #3 to obtain a 1.5-3 mil (40-75 micron) blast profile.

Concrete: Apply over clean, dry recommended surfacer or primer. Can be applied directly to damp (not visibly wet) or dry concrete where an uneven surface can be tolerated. Remove laitance by abrasive blasting or other means.

Do not coat concrete treated with hardening solutions unless test patches indicate satisfactory adhesion. Do not apply coating unless concrete has cured at least 28 days at 70° F (21° C) and 50% RH or equivalent time.

MIXING: Mix separately, then combine and mix in the following proportions:

	2 Gal. Kit	10 Gal. Kit
CARBOLINE 890 Part A	1 gallon	5 gallons
CARBOLINE 890 Part B	1 gallon	5 gallons

THINNING: For spray applications, may be thinned up to 10% (12.8 fl. oz./gal.) by volume with CARBOLINE Thinner #2.

For brush and roller application may be thinned up to 12% (16 fl. oz./gal.) by volume with CARBOLINE Thinner #33.

Refer to Specification Data for VOC information.

Use of thinners other than those supplied or approved by Carboline may adversely affect product performance and void product warranty, whether express or implied.

POT LIFE: Three hours at 75° F (24° C) and less at higher temperatures. Pot life ends when material loses film build.

APPLICATION CONDITIONS:

	Material	Surfaces	Ambient	Humidity
Normal	60-85° F (16-29° C)	60-85° F (16-29° C)	60-90° F (16-32° C)	0-80%
Minimum	50° F (10° C)	50° F (10° C)	50° F (10° C)	0%
Maximum	90° F (32° C)	125° F (52° C)	110° F (43° C)	80%

Do not apply when the surface temperature is less than 5° F (or 3° C) above the dew point.

Special thinning and application techniques may be required above or below normal conditions.

SPRAY: This is a high solids coating and may require slight adjustments in spray techniques. Wet film thicknesses are easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Conventional: Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap.

Airless:

Pump Ratio: 30:1 (min.)*

GPM Output: 3.0 (min.)

Material Hose: 3/8" I.D. (min.)

Tip Size: .017-.021"

Output psi: 2100-2300

Filter Size: 60 mesh

*Teflon packings are recommended and are available from the pump manufacturer.

BRUSH OR ROLLER: Use medium bristle brush, or good quality short nap roller, avoid excessive rebrushing and rerolling. Two coats may be required to obtain desired appearance, hiding and recommended DFT. For best results, tie-in within 10 minutes at 75° F (24° C).

DRYING TIMES: These times are at 5 mils (125 microns) dry film thickness. Higher film thicknesses will lengthen cure times.

Dry to Touch 2 1/2 hours at 75° F (24° C)

Dry to Handle 6 1/2 hours at 75° F (24° C)

Temperature	Dry to Topcoat**	Final Cure
50° F (10° C)	24 hours	3 days
60° F (16° C)	16 hours	2 days
75° F (24° C)	8 hours	1 day
90° F (32° C)	4 hours	16 hours

**When recoating with CARBOLINE 890, recoat times will be drastically reduced. Contact Carboline Technical Service for specific recommendation.

Recommended minimum cure before immersion service is 5 days at 75° F (24° C).

EXCESSIVE HUMIDITY OR CONDENSATION ON THE SURFACE DURING CURING MAY RESULT IN SURFACE HAZE OR BLUSH; ANY HAZE OR BLUSH MUST BE REMOVED BY WATER WASHING BEFORE RECOATING.

CLEANUP: Use CARBOLINE Thinner #2.

CAUTION: READ AND FOLLOW ALL CAUTION STATEMENTS ON THIS PRODUCT DATA SHEET AND ON THE MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

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SECTION I - PRODUCT: CARBOLINE 890 PART A (P295A1NL)
Date: 09/11/93 Replaces 02/16/93 - VLF

CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

CHEMICAL NAME	(A)	(B)	(C)	(D)	(E)
COLOR PIGMENT	MIXTURE	25%	3.5MG/M3	NE	NE
SILICA	14808-60-7	15%	0.1MG/M3	NE	NE
EPOXY RESIN	25068-38-6	15%	NE	NE	NE
TOLUENE	108-88-3	5%	100 PPM	150 PPM	NE
XYLENE	1330-20-7	5%	100 PPM	150 PPM	NE
AROMATIC SOLVENT	64742-95-6	5%	25PPM	NE	NE

CHEMICAL NAME	HAZARDOUS INGREDIENTS (F)	ADDITIONAL DATA (G)
COLOR PIGMENT	NOT AVAILABLE	NO/NO
SILICA	NOT AVAILABLE	NO/NO
EPOXY RESIN	11.4G/KG RAT, ORAL >20ML/KG RABBIT, SKIN	NO/NO/1,2
TOLUENE	2500 MG/KG RAT, ORAL 18000 PPM/4HRS RAT, INHALATION	NO/YES/1,2,3
XYLENE	4300MG/KG RAT, ORAL 15000 PPM/4HRS RAT, INHALATION	NO/YES/1,2,3
AROMATIC SOLVENT	4700MG/KG RAT, ORAL 3670PPM/8HRS RAT, INHALATION	NO/NO/1,2,3

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F) TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312 CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: B2 -- D2A -- D2B
HMIS/NFPA CLASSIFICATION: HEALTH 2, FLAMMABILITY 3, REACTIVITY 0,
PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: 232F(111C)-346F(174C). VAPOR DENSITY: Heavier than air.
EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 11 %. VOLATILE BY VOLUME: 17 %. PRODUCT WT/GAL: 11.5 LBS/U.S.GAL. 1.38 sp gr. VOC (MIXED PRODUCT THINNED TO MAXIMUM LEVEL): 2.4 LBS/U.S.GAL. 285 gm/lr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 73 F(22C) (Setaflash) LEL 0.9 % UEL 7.1 %.
OSHA-PAINT/CLASS/3/UN1263/PGIII, DOT-PAINT, CLASS 3, UN1263, PGIII, CANADIAN

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PRODUCT: CARBOLINE 890 PART A

(P295A1NL)

Date: 09/11/93 Replaces 02/16/93 - VLF

TDGA: PAINT, CLASS 3, UN1263, PG III

EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL).

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation.

CONTACT: May cause eye irritation. May cause skin irritation. May cause allergic skin reaction.

NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on duration and level of exposure. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If sensitized to amines, epoxies or other chemicals do not use. See a physician if a medical condition exists.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.

EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.

EYE CONTACT: Flush with water for 15 minutes.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.

IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.

CONDITIONS TO AVOID: Heat, sparks, and open flames.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources.

Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and

PRODUCT: CARBOLINE 890 PART A

(P295A1NL)

Date: 09/11/93 Replaces 02/16/93 - VLF

equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved air-purifying respirator.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY

CARBOLINE CO. MATERIAL SAFETY DATA SHEET NON-HAZARDOUS
PRODUCT: CARBOLINE 890 PART A (P295A1NL)

Date: 09/11/93 Replaces 02/16/93 - VLF

Non-Hazardous Materials above 1 Percent:

Name	CAS	Pct
ALKYL PHTHALATE	NE	20%
EPOXY RESIN	25036-25-3	20%
EPOXY RESIN	25036-25-3	15%

SECTION I - PRODUCT: CARBOLINE 890 PART B (0986B1NL)
 Date: 09/07/93 Replaces 02/26/93 - VLF

EMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
 PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

CHEMICAL NAME	(A)	(B)	(C)	(D)	(E)
SILICA	14808-60-7	65%	0.1MG/M3	NE	NE
XYLENE	1330-20-7	10%	100 PPM	150 PPM	NE
ALIPHATIC AMINE	NE	5%	NE	NE	NE
CYCLOALIPHATIC AMINE	BLEND	5%	NE	NE	NE
AROMATIC SOLVENT	64742-95-6	5%	25PPM	NE	NE
ISOPROPANOL	67-63-0	5%	400 PPM	500 PPM	NE

CHEMICAL NAME	HAZARDOUS INGREDIENTS (F)	ADDITIONAL DATA (G)
SILICA	NOT AVAILABLE	NO/NO
XYLENE	4300MG/KG RAT, ORAL 15000 PPM/4HRS RAT, INHALATION	NO/YES/1,2,3
ALIPHATIC AMINE	NOT AVAILABLE	NO/NO/1,2
CYCLOALIPHATIC AMINE	NOT AVAILABLE	NO/NO/1,2
AROMATIC SOLVENT	4700MG/KG RAT, ORAL 3670PPM/8HRS RAT, INHALATION	NO/NO/1,2,3
ISOPROPANOL	4720MG/KG RAT, ORAL 16000PPM/8HRS RAT, INHALATION	NO/NO/3

BLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F) TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312 CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: B2 -- D2A -- D2B
 HMIS/NFPA CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 1,
 PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: 180F(82C)-346F(174C). VAPOR DENSITY: Heavier than air.
 EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 17 %. VOLATILE BY VOLUME: 33 %. PRODUCT WT/GAL: 13.6 LBS/U.S.GAL. 1.63 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 71 F(21C) (Setaflash) LEL 0.9 % UEL 12.7 %.
 OSHA-PAINT/CLASS/3/UN1263/PGII, DOT-PAINT, CLASS 3, UN1263, PGII, CANADIAN TDGA: PAINT, CLASS 3, UN1263, PG II
 EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.

PRODUCT: CARBOLINE 890 PART B

(0986B1NL)

Date: 09/07/93 Replaces 02/26/93 - VLF

USUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation.
CONTACT: May cause eye burns. May cause skin burns. May cause allergic skin reaction.

NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on duration and level of exposure. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If sensitized to amines, epoxies or other chemicals do not use. See a physician if a medical condition exists.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.

EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.

EYE CONTACT: Flush with water for 15 minutes.

IN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.

IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.

CONDITIONS TO AVOID: Heat, sparks, and open flames.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent

PRODUCT: CARBOLINE 890 PART B

(0986B1NL)

Date: 09/07/93 Replaces 02/26/93 - VLF

Material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved air-purifying respirator.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY

CARBOLINE CO: MATERIAL SAFETY DATA SHEET NON-HAZARDOUS
PRODUCT: CARBOLINE 890 PART B (0986B1NL)

Date: 09/07/93 Replaces 02/26/93 - VLF

Non-Hazardous Materials above 1 Percent:

Name	CAS	Pct
-----	-----	-----
NZYL ALCOHOL	100-51-6	10%
EA	NE	5%

Candidate Coatings		Manufacturer's Product Data and Recommendations						
System	Manufacturer Product	Surface Prep	Profile mills	Coats #	DFT, ea. (mil)	Vol. Solids %	Abrasive used	Applicate Equip*
4	Carboline							
	Carbomastic 15 polyamine alum. epoxy	(SP-10)	1-3	1	7 to 10	90%	Alum. Oxide (24)	B,R,C,A
	Carboline 890 amine epoxy	SP-1	-	1	4 to 6	75%	-	B,R,C,A

Topcoat

Panel Numbers SS=247-268

Alum= 269-290

Coupled= 291-304

CPVC=305-322

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	247	2.3	16.2	14.8	15.7	14.7	15.7	15.2	15.4
SS	248		14	15.3	13.9	15	14	14.1	14.4
SS	249		15	11.4	14.9	10.9	15.8	11.7	13.3
SS	250		17	15.5	17	14.5	16.8	15.3	16.0
SS	251		15.4	14.7	14.8	15.7	15	14.5	15.0
SS	252	2.1	14.3	13.8	13.9	13.7	13.8	13.5	13.8
SS	253		15.2	13.7	14.9	13.9	15.5	13.8	14.5
SS	254		15.3	14.3	15.3	14.4	14.8	14.2	14.7
SS	255		16.5	16	16.9	15.8	17	15.2	16.2
SS	256		18.5	18.5	18.9	19.2	18.7	19.6	18.9
SS	257	2.0	18.4	16.9	18.3	16.4	18.2	16.5	17.5
SS	258		14.7	12.6	16.2	12.6	16.4	13	14.3
SS	259		16.7	14.6	16.9	14.6	16.5	14.5	15.6
SS	260		13	16	13.2	16.4	12.4	16.2	14.5
SS	261		12.9	12.4	13.3	12.7	13	12.3	12.8
SS	262	2.1	20.4	16.7	20.7	16.8	20.7	16.3	18.6
SS	263		16.5	16.1	16.8	16.3	16.6	16.2	16.4
SS	264		14.5	13.7	14.5	13.3	14.7	13.5	14.0
SS	265		14	12.7	14	11.9	13.5	12.5	13.1
SS	266		15.6	14.7	15.5	14.3	15.2	14.1	14.9
SS	267	2.1	12.4	12.9	12.6	12.3	12.9	12.6	12.6
SS	268		14	13	13.9	12.8	14.2	13.5	13.6
ALUM	269	2.8	13.7	14.8	13.9	14.4	13.9	13.7	14.1
ALUM	270		18	15.7	17.6	15.7	17.7	15	16.6
ALUM	271		17	13.6	17.3	13.5	16.8	14.3	15.4
ALUM	272		17.4	16	17.7	16	17.6	16.5	16.9
ALUM	273		14.5	14.7	14.6	14.6	14.6	14.6	14.6
ALUM	274	3.2	19.8	14.4	20.2	15.1	19.7	15.6	17.5
ALUM	275		16.7	13.5	16.6	13.8	16.7	14.6	15.3
ALUM	276		16.6	15.4	16.3	14.6	16.3	14.5	15.6
ALUM	277		15.2	12	14.9	11.8	15.3	12	13.5
ALUM	278		16.6	13.8	16.7	14.3	16.5	13.9	15.3
ALUM	279	2.6	14.9	14.7	14.6	14.7	15.1	14.7	14.8
ALUM	280		19	13.8	18.9	14.5	18.4	14.5	16.5
ALUM	281		16.3	14.3	16.1	13.9	15.8	14.4	15.1
ALUM	282		15.8	13.8	15	14.3	15.3	13.4	14.6
ALUM	283		14.1	11.7	13.9	11.5	13.9	11.9	12.8
ALUM	284		19.2	17.8	19.3	17.1	18.8	17.2	18.2
ALUM	285	2.9	14.6	13	14.8	13.3	15.2	13.5	14.1
ALUM	286		14.9	12.9	15	12.7	15	12.8	13.9
ALUM	287		15.7	14.4	15.6	13.9	15.6	13.8	14.8
ALUM	288		13.8	16.8	14	16.4	14	17.2	15.4
ALUM	289		17	16.2	16.3	16	16.3	16.2	16.3

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ALUM	290	2.9	14.6	14.8	14.8	14.7	14.7	15.2	14.8
SS CPL	291		17.5	18.3	17.5	18	16.5	18.5	17.7
AL CPL	291		13.8	13.4	12.8	13.6	13.8	12.8	13.4
SS CPL	292		16.3	15.2	16.1	14.7	16.2	16.1	15.8
AL CPL	292		17.7	14.5	18.6	14.1	18	14.2	16.2
SS CPL	293		14.4	14.3	14.3	14.4	14.4	14	14.3
AL CPL	293		13.4	12.3	12.8	12.7	13	12.8	12.8
SS CPL	294	1.6	16.2	16.4	16	16.1	16.1	17	16.3
AL CPL	294	2.1	15.9	13.7	15.8	13.5	15.6	14	14.8
SS CPL	295		15.3	15.3	15.1	15	14.8	15.5	15.2
AL CPL	295		14.4	12.3	13.6	11.5	14.2	11.6	12.9
SS CPL	296		19.9	15.8	19.6	15.7	18.7	16	17.6
AL CPL	296		13.5	13.2	13.1	12.9	13.4	13.4	13.3
SS CPL	297	2.1	12.3	13.1	12.4	13.8	13.3	13	13.0
AL CPL	297	3.0	14.1	14.9	14.6	15.1	14.8	14.9	14.7
SS CPL	298		16.1	13.8	16.2	13.8	16.7	13.9	15.1
AL CPL	298		13.5	15.4	13.2	14.6	13.3	14.9	14.2
SS CPL	299		14	16	14.7	16	15	15.9	15.3
AL CPL	299		12.8	14.2	13	13.2	13.4	14.6	13.5
SS CPL	300	1.7	16.5	14.6	16.4	14.7	16.5	14.5	15.5
AL CPL	300	2.0	13.1	17.1	12.9	16.9	12.9	16.1	14.8
SS CPL	301		16.5	14.6	16.6	14.5	17.2	14.5	15.7
AL CPL	301		14.4	14.8	14.1	13.6	13.9	14.1	14.2
SS CPL	302		14.1	13.6	14.5	13.9	14.6	13.4	14.0
AL CPL	302		14.2	17.7	13.4	19.3	14	18.3	16.2
SS CPL	303		14.5	13.9	15	14.3	14.8	14.5	14.5
AL CPL	303		14.5	14.5	15	13.8	15	13.8	14.4
SS CPL	304		15.1	14	14.4	14.9	15.1	13.9	14.6
AL CPL	304		12.9	17.3	12.8	17.4	13.1	17.5	15.2
CPVC	305		150	157	22	29	25.5	12.75	12.8
CPVC	306		157	154	29	26	27.5	13.75	13.8
CPVC	307		156	158	28	30	29	14.5	14.5
CPVC	308		160	156	32	28	30	15	15.0
CPVC	309		162	157	34	29	31.5	15.75	15.8
CPVC	310		157	159	29	31	30	15	15.0
CPVC	311	1.8	159	151	31	23	27	13.5	13.5
CPVC	312		159	153	31	25	28	14	14.0
CPVC	313		157	153	29	25	27	13.5	13.5
CPVC	314		161	153	33	25	29	14.5	14.5
CPVC	315		158	158	30	30	30	15	15.0
CPVC	316		159	159	31	31	31	15.5	15.5
CPVC	317		151	154	23	26	24.5	12.25	12.3
CPVC	318		149	153	21	25	23	11.5	11.5
CPVC	319		157	158	29	30	29.5	14.75	14.8
CPVC	320		159	154	31	26	28.5	14.25	14.3
CPVC	321		158	161	30	33	31.5	15.75	15.8
CPVC	322		160	152	32	24	28	14	14.0
Adh	323		13.4	10.3	14	11	13.7	10.5	12.2
Adh	324		11.4	12	12.1	12	11.8	12.5	12.0
Tabor	325		11.6	10.6	12.1	10.1	12.1	10.6	11.2
Tabor	326		17	11.7	16.7	11.3	16.8	11.7	13.6
Impact	327		17.1	14.6	17.3	14.7	16.3	15.1	15.9
Impact	328		15.7	14.5	16.2	14.6	15.6	14	15.1

average

15.5

14.6

15.4

14.5

15.5

14.6

14.8

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Summary of Work Performed: *Applied Carboline*

CLIENT: *70251*

JOB NO: *H6341*

(Repair)

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	<i>Carboline 890</i>		
Batch Numbers (Record)	<i>A) 4B45081 B) 4B45095</i>		
Material Temperature/Potlife (Record)	<i>70°</i>		
Correct Thinner/Amount (Record)	<i>—</i>		
Time of Mix (Record)	<i>10:30</i>		
Mix Ratio (Record)	<i>4:1:1</i>		
Induction Period (Record)	<i>30 min</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>74°</i> WB: <i>64°</i> RH: <i>58%</i> DP: <i>59°</i> ST:		
Applicator's Name (Record)	<i>C. Poche'</i>		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	<i>11:00</i>		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation	<i>—</i>		
Application Equipment (Record)	<i>Brush</i>		
Time Application Complete (Record)	<i>11:05</i>		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: *C. Poche'*

Date: *8/1/94*

Report No.

Page *01*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JCB NO:

Summary of Work Performed: Apply Carboline 890 White Topcoat

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	Carboline 890		
Batch Numbers (Record)	A=4845094 B=4845094		
Material Temperature/Potlife (Record)	3 hrs.		
Correct Thinner/Amount (Record)	#2 10%		
Time of Mix (Record)	10:20 am		
Mix Ratio (Record)	1:1		
Induction Period (Record)	NA		

APPLICATION

Ambient Conditions (Record)	DB: 73°F WB: 62°F RH: 51% DP:	ST:
Applicator's Name (Record)		
Surface Prep. to Appl. (Record Time)		
Compressed Air Cleanliness		✓
Time Application Began (Record)	10:30 am	
Surrounding Air Cleanliness		✓
Recoat Times Observed (Record Actual)	NA	✓
Intercoat Cleanliness		✓
Proper Pot Agitation	NA	
Application Equipment (Record)	Devilbiss 64 cap	
Time Application Complete (Record)	12:15 pm	

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Sprays very well

Inspector: R. Bazzano

Date:

4/17/94

Report No.

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of

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DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: *NASA*JCB NO: *H-6341*Summary of Work Performed: *Apply 2nd Coat Carboline low odor Aluminum primer*
Carbomastic 15

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	<i>Carbomastic 15 Low odor</i>		
Batch Numbers (Record)	<i>A=010185 / B=010185</i>		
Material Temperature/Potlife (Record)	<i>70°F 4 hr</i>		
Correct Thinner/Amount (Record)	<i>#2*010522 15%</i>		
Time of Mix (Record)	<i>2:25 p</i>		
Mix Ratio (Record)	<i>1:1</i>		
Induction Period (Record)	<i>N/A</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>72°F</i> WB: <i>56°F</i> RH: <i>34%</i> DP: <i>43"</i> ST: <i>70°F</i>		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)	<i>2:40 pm</i>	✓	
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation	<i>N/A</i>		
Application Equipment (Record)	<i>Devilbiss 69 cap</i>		
Time Application Complete (Record)	<i>3:30 pm</i>		

INSPECTION

Visual Appearance		✓	
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *4 passes*Inspector: *R. Duggan*Date: *4/17/94*

Report No.

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DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT: NASA

JCB NO: H 6341

Summary of Work Performed: Apply 1st Coat Carbonastic 15 Low Odor Abm. Primer

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	Carbonastic 15 Low Odor		
Batch Numbers (Record)	A=010185 B=010185		
Material Temperature/Potlife (Record)	84°F 4 hrs		
Correct Thinner/Amount (Record)	#2 Thinner 010522 10%		
Time of Mix (Record)	9:50am 11:10am 12:10p		
Mix Ratio (Record)	1:1		
Induction Period (Record)	N/A		

APPLICATION

Ambient Conditions (Record)	DB: 68°F WB: 54°F RH: 38% DP: 42°F ST: 64°F		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)	10:15a 11:20p 12:10		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness	N/A		
Proper Pot Agitation	N/A		
Application Equipment (Record)	Devilbiss 69 cap		
Time Application Complete (Record)	10:20 11:55p 1:55		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: 24 hrs later coating too soft

for DFT

Inspector: R. Braggett

Date: 4/16/94

Report No.

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Panel/Tag #	Front	Front	Back
247 SS	PRESS-O-FILM™ No. <u>247 F</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>247 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>247 B</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
252 SS	PRESS-O-FILM™ No. <u>252 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>252 F</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>252 B</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
257 SS	PRESS-O-FILM™ No. <u>257 F</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>257 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>257 B</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
262 SS	PRESS-O-FILM™ No. <u>262 F</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>262 F</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>262 B</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
267 SS	PRESS-O-FILM™ No. <u>267 F</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>267 F</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>267 B</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
269 ALUM SS	PRESS-O-FILM™ No. <u>269 F</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>269 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>269 B</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
274 ALUM SS	PRESS-O-FILM™ No. <u>274 F</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>274 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>274 B</u> Mils. <u>3.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
279 ALUM SS	PRESS-O-FILM™ No. <u>279 F</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>279 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>279 B</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
285 ALUM	PRESS-O-FILM™ No. <u>285 F</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>285 F</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>285 B</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
290 ALUM	PRESS-O-FILM™ No. <u>290 F</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>290 F</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>290</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
294 CP SS	PRESS-O-FILM™ No. <u>294 SSF</u> Mils. <u>1.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>294 F</u> Mils. <u>1.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>294</u> Mils. <u>1.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
294 CPSS ALUM	PRESS-O-FILM™ No. <u>294 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>294</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>294 B</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
297 CPSS	PRESS-O-FILM™ No. <u>297 SSF</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>297 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>297 B</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
297 CP AL	PRESS-O-FILM™ No. <u>297 F</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>297</u> Mils. <u>4.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>297 B</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
300 CP SS	PRESS-O-FILM™ No. <u>300</u> Mils. <u>1.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>300</u> Mils. <u>1.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>300 B</u> Mils. <u>1.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
300 CP AL	PRESS-O-FILM™ No. <u>300 F</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>300 F</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>300</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
311 CPVC	PRESS-O-FILM™ No. <u>311 F</u> Mils. <u>1.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>311 F</u> Mils. <u>1.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>311 B</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)

Candidate Coatings

Manufacturer's Product Data and Recommendations

System

4

Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mld)	Vol. Solids %	Abrasive used	Applicate Equip*
Carboline Carbomastic 15 polyamine alum. epoxy	(SP-10)	1-3	1	7 to 10	90%	Alum. Oxide (24)	B,R,C,A
Carboline 890 amine epoxy	SP-1	-	1	4 to 6	75%	-	B,R,C,A

Panel Numbers SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #	Surface Profile	1F		2F		1F		2F		Average DFT
		DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT	
SS	247		8.2	6.7	8.2	6.9	8.1	7.0		#DIV/0!
SS	248		7.6	6.9	7.3	7.1	7.4	7.0		#DIV/0!
SS	249		8.0	5.9	8.0	6.3	8.1	6.9		#DIV/0!
SS	250		9.9	9.1	9.7	9.0	9.8	9.2		#DIV/0!
SS	251		8.5	8.4	8.7	9.0	9.0	8.0		#DIV/0!
SS	252		9.1	9.4	8.9	9.6	9.3	9.5		#DIV/0!
SS	253		8.0	7.9	9.5	8.4	9.2	8.1		#DIV/0!
SS	254		10.5	8.6	10.4	8.5	10.0	8.9		#DIV/0!
SS	255		10.1	9.8	10.1	9.7	10.2	9.7		#DIV/0!
SS	256		9.0	8.1	8.3	8.1	8.0	12.0		#DIV/0!
SS	257		9.7	10.4	9.5	10.5	9.7	10.6		#DIV/0!
SS	258		10.2	9.6	10.2	10.1	10.4	10.0		#DIV/0!
SS	259		9.2	8.9	9.2	8.8	9.1	8.9		#DIV/0!
SS	260		6.6	9.2	7.7	9.1	6.8	9.2		#DIV/0!
SS	261		8.9	7.6	9.1	8.0	9.5	8.1		#DIV/0!
SS	262		8.9	11.9	8.8	12.0	8.7	13.7		#DIV/0!
SS	263		10.0	8.6	9.8	12.4	10.2	8.5		#DIV/0!
SS	264		10.0	10.0	9.8	8.5	9.7	8.7		#DIV/0!
SS	265		8.3	7.4	8.1	7.2	8.0	7.2		#DIV/0!
SS	266		8.3	8.4	8.2	8.0	8.3	8.5		#DIV/0!
SS	267		9.8	9.6	9.4	10.3	10.1	10.7		#DIV/0!
SS	268		8.5	7.1	8.7	6.9	8.7	6.9		#DIV/0!
ALUM	269		9.4	9.4	9.4	9.2	9.6	9.0		#DIV/0!
ALUM	270		9.2	8.6	9.3	7.6	9.4	8.1		#DIV/0!
ALUM	271		9.1	9.0	9.7	8.7	9.3	9.4		#DIV/0!
ALUM	272		11.1	8.8	11.0	8.3	10.8	8.1		#DIV/0!
ALUM	273		9.2	5.5	10.0	5.7	9.5	5.8		#DIV/0!
ALUM	274		8.1	7.8	8.2	7.8	7.9	8.0		#DIV/0!
ALUM	275		9.2	8.8	8.9	9.2	9.1	9.0		#DIV/0!
ALUM	276		9.8	7.5	9.5	7.8	9.6	7.6		#DIV/0!
ALUM	277		8.8	7.1	8.6	7.1	8.6	7.3		#DIV/0!

4-8-94

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	278	8.2	8.5	8.2	8.4	8.4	8.9	#DIV/0!
ALUM	279	9.0	6.8	8.9	7.0	9.0	7.0	#DIV/0!
ALUM	280	10.9	8.3	10.4	8.4	10.4	8.1	#DIV/0!
ALUM	281	8.8	6.4	9.2	6.9	9.1	7.0	#DIV/0!
ALUM	282	9.4	9.2	9.7	9.3	9.7	9.2	#DIV/0!
ALUM	283	5.7	6.6	6.5	6.9	6.3	6.7	#DIV/0!
ALUM	284	9.8	7.0	9.8	7.3	9.9	7.1	#DIV/0!
ALUM	285	8.7	7.1	8.6	7.1	8.5	6.9	#DIV/0!
ALUM	286	9.1	7.3	10.0	7.2	9.7	7.2	4.8
ALUM	287	9.3	10.3	9.9	9.3	9.5	9.1	#DIV/0!
ALUM	288	10.5	9.6	10.6	9.9	10.7	10.2	#DIV/0!
ALUM	289	9.8	10.6	9.9	10.6	9.9	10.9	#DIV/0!
ALUM	290	8.1	9.2	7.7	9.0	7.9	8.9	#DIV/0!
SSCPL	291	11.2	12.0	11.2	11.8	11.3	11.8	#DIV/0!
AL CPL	291	6.7	6.5	6.0	6.5	6.3	6.0	#DIV/0!
SSCPL	292	9.8	9.1	9.3	9.1	8.9	9.0	#DIV/0!
AL CPL	292	11.9	7.4	12.3	7.6	11.8	8.0	#DIV/0!
SSCPL	293	9.0	8.7	8.7	8.7	8.6	8.6	#DIV/0!
AL CPL	293	9.3	9.0	9.6	8.9	9.5	9.1	#DIV/0!
SSCPL	294	11.0	12.3	11.5	11.2	11.0	11.7	#DIV/0!
AL CPL	294	9.8	8.1	9.7	8.4	10.0	8.2	#DIV/0!
SSCPL	295	8.0	8.9	8.0	8.7	7.7	8.9	#DIV/0!
AL CPL	295	6.8	6.7	6.5	7.1	6.5	6.6	#DIV/0!
SSCPL	296	11.7	9.1	11.4	9.4	9.6	9.1	#DIV/0!
AL CPL	296	7.4	6.5	7.5	7.0	7.3	6.5	#DIV/0!
SSCPL	297	8.1	8.0	8.1	7.9	8.3	8.1	#DIV/0!
AL CPL	297	7.5	10.4	7.2	10.6	7.8	10.6	#DIV/0!
SSCPL	298	8.4	7.8	8.5	7.9	8.4	7.6	#DIV/0!
AL CPL	298	7.2	7.5	7.7	7.9	7.5	8.1	#DIV/0!
SSCPL	299	7.1	9.0	7.3	9.0	7.3	8.7	#DIV/0!
AL CPL	299	8.5	8.2	8.0	8.4	7.9	8.3	#DIV/0!
SSCPL	300	8.4	8.6	8.1	8.5	8.3	8.6	#DIV/0!
AL CPL	300	8.1	9.2	7.9	9.3	7.8	9.4	#DIV/0!
SSCPL	301	9.0	7.8	8.2	7.8	8.8	7.9	#DIV/0!
AL CPL	301	7.8	7.5	7.7	7.7	7.8	7.9	#DIV/0!

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 302		7.9	7.4	7.6	7.3	7.8	7.3	#DIV/0!
AL CPL 302		8.7	10.2	9.0	10.2	8.5	11.1	#DIV/0!
SS CPL 303		8.1	6.3	8.5	6.9	8.2	6.5	#DIV/0!
AL CPL 303		8.9	8.4	8.5	8.2	8.8	8.0	#DIV/0!
SS CPL 304		9.0	7.7	9.6	8.9	9.5	9.1	#DIV/0!
AL CPL 304		8.3	11.1	8.0	10.8	8.2	10.8	#DIV/0!
CPVC 305								#DIV/0!
CPVC 306								#DIV/0!
CPVC 307								#DIV/0!
CPVC 308								#DIV/0!
CPVC 309								#DIV/0!
CPVC 310								#DIV/0!
CPVC 311								#DIV/0!
CPVC 312								#DIV/0!
CPVC 313								#DIV/0!
CPVC 314								#DIV/0!
CPVC 315								#DIV/0!
CPVC 316								#DIV/0!
CPVC 317								#DIV/0!
CPVC 318								#DIV/0!
CPVC 319								#DIV/0!
CPVC 320								#DIV/0!
CPVC 321								#DIV/0!
CPVC 322								#DIV/0!
Adh 323		8.4	8.0	7.9	7.8	8.2	7.2	#DIV/0!
Adh 324		7.8	7.3	8.1	7.5	7.9	7.4	#DIV/0!
Tabor 325		6.0	7.3	6.2	7.1	6.3	7.3	#DIV/0!
Tabor 326		6.5	9.9	6.4	9.5	6.5	9.6	#DIV/0!
Impact 327		8.8	8.2	8.4	7.9	8.7	7.4	#DIV/0!
Impact 328		9.3	6.9	9.3	6.9	9.6	7.0	#DIV/0!

Candidate Coatings

Manufacturer's Product Data and Recommendations

System

4

Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mld)	Vol. Solids %	Abrasive used	Applicate Equip*
Carboline Carbomastic 15 polyamine alum. epoxy	(SP-10)	1-3	1	7 to 10	90%	Alum. Oxide (24)	B,R,C,A
Carboline 890 amine epoxy	SP-1	-	1	4 to 6	75%	-	B,R,C,A

Panel Numbers SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 247		16.2	14.8	15.7	14.7	15.7	15.2	#DIV/0!
SS 248		14	15.3	13.9	15	14.0	14.1	#DIV/0!
SS 249		15.0	11.4	14.9	10.9	15.8	11.7	#DIV/0!
SS 250		17	15.5	17	14.5	16.8	15.3	#DIV/0!
SS 251		15.4	14.7	14.8	15.7	15	14.5	#DIV/0!
SS 252		14.3	13.8	13.9	13.7	13.8	13.5	#DIV/0!
SS 253		15.2	13.7	14.9	13.9	15.5	13.8	#DIV/0!
SS 254		15.3	14.3	15.3	14.4	14.8	14.2	#DIV/0!
SS 255		16.5	16.0	16.9	15.8	17	15.2	#DIV/0!
SS 256		18.5	18.5	18.9	19.2	18.7	19.6	#DIV/0!
SS 257		18.4	16.9	18.3	16.4	18.2	16.5	#DIV/0!
SS 258		14.7	12.6	16.2	12.6	16.4	13	#DIV/0!
SS 259		16.7	14.6	16.9	14.6	16.5	14.5	#DIV/0!
SS 260		13.0	16	13.2	16.4	12.4	16.2	#DIV/0!
SS 261		12.9	12.4	13.3	12.7	13.0	12.3	#DIV/0!
SS 262		20.4	16.7	20.7	16.8	20.7	16.3	#DIV/0!
SS 263		16.5	16.1	16.8	16.3	16.6	16.2	#DIV/0!
SS 264		14.5	13.7	14.5	13.3	14.7	13.5	#DIV/0!
SS 265		14	12.7	14	11.9	13.5	12.5	#DIV/0!
SS 266		15.6	14.7	15.5	14.3	15.2	14.1	#DIV/0!
SS 267		12.4	12.9	12.6	12.3	12.9	12.4	#DIV/0!
SS 268		14.0	13.0	13.9	12.8	14.2	13.5	#DIV/0!
ALUM 269		13.7	14.8	13.9	14.4	13.9	13.7	#DIV/0!
ALUM 270		18	15.7	17.6	15.7	17.7	15.0	#DIV/0!
ALUM 271		17	13.6	17.3	13.5	16.8	14.3	#DIV/0!
ALUM 272		17.4	16.0	17.7	16.0	17.6	16.5	#DIV/0!
ALUM 273		14.5	14.7	14.4	14.6	14.6	14.6	#DIV/0!
ALUM 274		19.8	14.4	20.2	15.1	19.7	15.6	#DIV/0!
ALUM 275		16.7	13.5	16.4	13.8	16.7	14.4	#DIV/0!
ALUM 276		14.6	15.4	16.3	14.4	16.3	14.5	#DIV/0!
ALUM 277		15.2	12.0	14.9	11.8	15.3	12	#DIV/0!

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Coating System 4 Carboline Carbomastic 15 Page of

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	278	16.6	13.8	16.7	14.3	14.5	13.9	#DIV/0!
ALUM	279	14.9	14.7	14.4	14.7	15.1	14.7	#DIV/0!
ALUM	280	19	13.8	18.9	14.5	18.4	14.5	#DIV/0!
ALUM	281	16.3	14.3	16.1	13.9	15.8	14.4	#DIV/0!
ALUM	282	15.8	13.8	15	14.3	15.3	13.4	#DIV/0!
ALUM	283	14.1	11.7	13.9	11.5	13.9	11.9	#DIV/0!
ALUM	284	19.2	17.8	19.3	17.1	18.8	17.2	#DIV/0!
ALUM	285	14.6	13.0	14.8	13.3	15.2	13.5	#DIV/0!
ALUM	286	14.9	12.9	15	12.7	15	12.8	4.8
ALUM	287	15.7	14.4	15.6	13.9	15.6	13.8	#DIV/0!
ALUM	288	13.8	16.8	14	16.4	14	17.2	#DIV/0!
ALUM	289	17	16.2	16.3	16.0	16.3	16.2	#DIV/0!
ALUM	290	14.6	14.8	14.8	14.7	14.7	15.2	#DIV/0!
SS CPL	291	17.5	18.3	17.5	18.0	16.5	18.5	#DIV/0!
AL CPL	291	13.8	13.4	12.8	13.4	13.8	12.8	#DIV/0!
SS CPL	292	16.3	15.2	16.1	14.7	16.2	16.1	#DIV/0!
AL CPL	292	17.7	14.5	18.6	14.1	18.0	14.2	#DIV/0!
SS CPL	293	14.4	14.3	14.3	14.4	14.4	14.0	#DIV/0!
AL CPL	293	13.4	12.3	12.8	12.7	13.0	12.8	#DIV/0!
SS CPL	294	16.2	16.4	16.0	16.1	16.1	17	#DIV/0!
AL CPL	294	15.9	13.7	15.8	13.5	15.6	14.0	#DIV/0!
SS CPL	295	15.3	15.3	15.1	15.0	14.8	15.5	#DIV/0!
AL CPL	295	14.4	12.3	13.4	11.5	14.2	11.6	#DIV/0!
SS CPL	296	19.9	15.8	19.6	15.7	18.7	16.0	#DIV/0!
AL CPL	296	13.5	13.2	13.1	12.9	13.4	13.4	#DIV/0!
SS CPL	297	12.3	13.1	12.4	13.8	13.3	13.0	#DIV/0!
AL CPL	297	14.1	14.9	14.6	15.1	14.8	14.9	#DIV/0!
SS CPL	298	16.1	13.8	16.2	13.8	16.7	13.9	#DIV/0!
AL CPL	298	13.5	15.4	13.2	14.4	13.3	14.9	#DIV/0!
SS CPL	299	14	16	14.7	14	15	15.9	#DIV/0!
AL CPL	299	12.8	14.2	13.0	13.2	13.4	14.16	#DIV/0!
SS CPL	300	16.5	14.6	16.4	14.7	16.5	14.5	#DIV/0!
AL CPL	300	13.1	17.1	12.9	16.9	12.9	16.1	#DIV/0!
SS CPL	301	16.5	14.4	16.6	14.5	17.2	14.5	#DIV/0!
AL CPL	301	14.4	14.8	14.1	13.6	13.9	14.1	#DIV/0!

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 302 302		15.1	14	14.4	14.9	15.1	13.9	#DIV/0!
AL CPL 302		14.2	17.7	13.4	19.3	14	18.3	#DIV/0!
SS CPL 303		14.5	13.9	15	14.3	14.8	14.5	#DIV/0!
AL CPL 303		14.5	14.5	15	13.8	15	13.8	#DIV/0!
SS CPL 303 304		14.1	13.6	14.5	13.9	14.6	13.4	#DIV/0!
AL CPL 304		12.9	17.3	12.8	17.4	13.1	17.5	#DIV/0!
CPVC 305		150	157					#DIV/0!
CPVC 306		157	154					#DIV/0!
CPVC 307		156	158					#DIV/0!
CPVC 308		160	156					#DIV/0!
CPVC 309		162	157					#DIV/0!
CPVC 310		157	159					#DIV/0!
CPVC 311		159	151					#DIV/0!
CPVC 312		159	153					#DIV/0!
CPVC 313		157	153					#DIV/0!
CPVC 314		161	153					#DIV/0!
CPVC 315		158	158					#DIV/0!
CPVC 316		159	159					#DIV/0!
CPVC 317		151	154					#DIV/0!
CPVC 318		149	153					#DIV/0!
CPVC 319		157	158					#DIV/0!
CPVC 320		159	154					#DIV/0!
CPVC 321		158	161					#DIV/0!
CPVC 322		160	152					#DIV/0!
Adh 323		13.4	10.3	14	11	13.7	10.5	#DIV/0!
Adh 324		11.4	12.0	12.1	12.0	11.8	12.5	#DIV/0!
Tabor 325		11.4	10.0	12.1	10.1	12.1	10.6	#DIV/0!
Tabor 326		17.0	11.7	14.7	11.3	16.8	11.7	#DIV/0!
Impact 327		17.1	14.6	17.3	14.7	16.3	15.1	#DIV/0!
Impact 328		15.7	14.6	16.2	14.4	15.6	14.0	#DIV/0!

Kids do not have appx.

System #5 Manufacture's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Applicate Equip*
Sherwin Williams Hi-Solids Catalyzed polyamide epoxy	SP-5		2	5to 6	61%	Alum. Oxide (24)	B,R,C,A

Panel Numbers SS= 329-350 Alum=351-372 Coupled=373-386 CPVC=387-404

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	330		11.8	10.9	12.2	11.2	11.6	11	11.5
SS	331		11.9	12.5	11.7	13.1	11.8	12.8	12.3
SS	332		10.9	11.2	10.9	11.1	11	11.6	11.1
SS	333		12.9	11.2	12.4	10.9	12.6	10.8	11.8
SS	334	2.1	12.2	14.4	12.6	14.9	11.4	14.6	13.4
SS	335		13.9	13.4	14.2	13.1	14.8	13.7	13.9
SS	336		15	12.8	15.6	12.3	15.6	12.7	14.0
SS	337		15.8	13	16.2	13.6	16.3	13.7	14.8
SS	338		13.7	14.5	14.1	13.9	14.8	14.2	14.2
SS	339	2.2	13.8	14.9	13.3	15.7	13.6	15.2	14.4
SS	340		11.9	14.5	12	13.9	12.2	13.1	12.9
SS	341		11.1	14.3	10.7	14.5	11.9	14.2	12.8
SS	342		13	11.1	13.1	12	12.9	11.6	12.3
SS	343		12.7	12.8	12.1	12.1	12.1	12.4	12.4
SS	344	2.3	13.5	14.3	14.1	13.9	13.7	13.8	13.9
SS	345		10.6	10.9	10.8	10.5	9.4	10.7	10.5
SS	346		11.6	12.4	10.6	12.9	10.6	13.5	11.9
SS	347		11.9	12.7	10.9	12.5	12.5	12.2	12.1
SS	348		13.9	13.1	12.9	13.4	12.9	14.4	13.4
SS	349	2.1	13.3	13.3	14.3	12.9	14.5	12.3	13.4
SS	350		14.5	13.8	14.4	13.4	14.1	13.7	14.0
ALUM	351	2.3	11.3	11.4	11.9	12.1	11.6	11.1	11.6
ALUM	352		9.8	10.4	9.6	10.7	10.4	10.7	10.3
ALUM	353		8.1	8.9	7.5	9.6	8.3	10.1	8.8
ALUM	354		11.7	11.7	11.6	10.8	12.3	11.6	11.6
ALUM	355		10.7	12	10.5	13	10.7	11.9	11.5
ALUM	356	2.3	10.4	9.1	10.1	8.8	10.5	8.9	9.6
ALUM	357		11.2	11.8	11	11.8	10.5	11.7	11.3
ALUM	358		11	11.5	11.5	10.8	11.7	11.3	11.3
ALUM	359		9	10	8.1	10.2	7.8	9.7	9.1
ALUM	360		10.4	10.1	9.3	10.5	9.6	10.5	10.1
ALUM	361	2.5	11.5	11	11.4	11.6	11.3	12.5	11.6
ALUM	362		10.6	11.4	10.4	11	10.4	11.4	10.9
ALUM	363		12.8	12.4	14.3	12.2	13.2	13.2	13.0
ALUM	364		14.2	10.7	14.7	10.4	14.7	10.4	12.5
ALUM	365		7.1	9	7.5	9.6	7.3	9.2	8.3
ALUM	366		12.7	9.8	13.6	9.7	12.9	9.8	11.4
ALUM	367		10	10	9.4	10	9.7	9.4	9.8
ALUM	368		9.4	11.9	9.8	12	9.6	12	10.8
ALUM	369		10.7	13.2	11.2	12.4	11.5	12.8	12.0
ALUM	370		10.3	10.8	10.8	10.6	11.1	11	10.8
ALUM	371	2.4	11.1	8.1	11.3	7.9	11.5	8.6	9.8
ALUM	372		10	10.9	9.4	11.6	9.8	11.2	10.5
SS CPL	373	2	12.4	12.2	13.2	12.4	13.2	12.8	12.7
AL CPL	373	2.6	12.3	13	11.3	12.5	10.8	12.5	12.1

SS CPL	374		13.6	14.2	14.6	14.7	14.6	13.9	14.3
AL CPL	374		11.6	10.8	12.2	11.6	11.9	11	11.5
SS CPL	375		12.5	11.2	12.3	11.2	11.7	10.6	11.6
AL CPL	375		11	11.2	10.7	12	11.1	11.3	11.2
SS CPL	376		12.6	14.4	12.7	14.3	12.8	14.1	13.5
AL CPL	376		10.2	12.3	9.8	12.1	10.1	12.1	11.1
SS CPL	377	2	12.4	11.4	12.3	11.3	12.2	11.3	11.8
AL CPL	377	2.4	11.2	13	11.2	13.3	10.7	13.3	12.1
SS CPL	378		13.3	15.1	13.1	15	13.1	15	14.1
AL CPL	378		13.6	15.9	14.3	15.2	13.1	15.7	14.6
SS CPL	379		13.4	13.6	13.3	13.3	13.1	13.2	13.3
AL CPL	379		11.4	14.4	11.5	14.4	11.6	14.7	13.0
SS CPL	380		13.7	13.5	13.6	13.9	13.1	14	13.6
AL CPL	380		7.6	10	7.8	11.1	7.9	10.1	9.1
SS CPL	381		12	13.6	11.4	14.1	11.7	13.5	12.7
AL CPL	381		11.9	16	11.7	15.9	12.1	15.5	13.9
SS CPL	382	1.9	13.8	12.7	13.1	12.8	13.4	13.2	13.2
AL CPL	382	2.9	11.6	11.3	12	11.5	11.2	11	11.4
SS CPL	383		13.3	12.9	13.1	13	13.7	13.3	13.2
AL CPL	383		10.6	12.5	10.7	13.2	11.3	13.1	11.9
SS CPL	384		17.5	13.5	17.6	14	17.4	13.2	15.5
AL CPL	384		13	12.3	13.4	12.2	12.6	12.4	12.7
SS CPL	385		15.1	13.1	15.7	13.5	14.2	13.4	14.2
AL CPL	385		11.2	15	12.2	15.7	11.8	15.6	13.6
SS CPL	386		16.2	12.9	16	13	16.3	12.7	14.5
AL CPL	386		12.9	11.7	12.4	11	12.3	11.5	12.0
CPVC	387		150	148	22	20	21	10.5	10.5
CPVC	388		156	153	28	25	26.5	13.25	13.3
CPVC	389		158	153	30	25	27.5	13.75	13.8
CPVC	390		153	150	25	22	23.5	11.75	11.8
CPVC	391		154	154	26	26	26	13	13.0
CPVC	392	1.5	149	149	21	21	21	10.5	10.5
CPVC	393		149	147	21	19	20	10	10.0
CPVC	394		150	149	22	21	21.5	10.75	10.8
CPVC	395		155	152	27	24	25.5	12.75	12.8
CPVC	396		150	149	22	21	21.5	10.75	10.8
CPVC	397		148	151	20	23	21.5	10.75	10.8
CPVC	398		156	149	28	21	24.5	12.25	12.3
CPVC	399		152	152	24	24	24	12	12.0
CPVC	400		155	157	27	29	28	14	14.0
CPVC	401		152	151	24	23	23.5	11.75	11.8
CPVC	402		154	147	26	19	22.5	11.25	11.3
CPVC	403		161	162	33	34	33.5	16.75	16.8
CPVC	404		166	158	38	30	34	17	17.0
Adh	405		10.7	12.3	10.9	12.9	10.9	12.6	11.7
Adh	406		12.2	11	12	11.3	11.5	11.1	11.5
Tabor	407		13.1	12.3	14.7	13.4	14.5	13.6	13.6
Tabor	408		14.4	15.1	15	15.4	14.3	14.7	14.9
Impact	409		13.4	12.8	13.2	12.8	13.1	13.4	13.1
Impact	410		13.4	11.8	13.7	11	12.8	11.3	12.3

average 12.1 12.3 12.1 12.4 12.1 12.3 12.3



Industrial Maintenance Coatings

PRODUCT DATA 4.06
(MC-56, E23)

HI-SOLIDS CATALYZED EPOXY

B62W201 Pure White
B62A213 Slate Gray
B60V20 Hardener

PRODUCT DESCRIPTION

HI-SOLIDS CATALYZED EPOXY is a high-solids polyamide/bisphenol A epoxy resin coating formulated into a high performance finish.

USES:

- o According to FDA Regulation 175.300, this product is suitable for use on surfaces intended for use in the producing, manufacturing, packing, processing, treating, transporting or storage of dry food at ambient temperatures when applied as a continuous film according to specification over suitable substrates, and acts as a functional barrier between the dry food and the substrate
- o Chemical resistant equipment enamel
- o Exterior heavy duty industrial maintenance enamel
- o Heavy duty interior structural coating
- o Chemical processing equipment and structures
- o Paper mills o Power plants
- o Storage tanks o Offshore structures, refineries
- o Immersion service - potable water. Meets Federal EPA requirements for composition of coatings used in potable (drinking) water. Meets requirements of AWWA D102-78 (Interior Systems) Inside Painting Systems #1, paint #3 - Catalyzed Epoxy @ 8 mils DFT.
- o Meets U.S. Department of Agriculture, Meat and Poultry Inspection Division requirements of being chemically acceptable when used as coatings for application to structural surfaces or surfaces where there is a possibility of incidental food contact.

PERFORMANCE INFORMATION:

- o Chemical resistant
- o High build for economical application
- o Resists bacterial attack

PHYSICAL PROPERTIES:

- o Abrasion resistance (ASTM D4060) 101 mg. (CS-17 wheel, 1,000 cycles, 1 kg. Taber Abraser)
- o Direct impact resistance (ASTM G14) ... 40 in. lbs.
- o Dry heat resistance (ASTM D2485, discolors) 200°F
- o Elcometer adhesion (ASTM D4541) 1000 psi
- o Exterior durability Excellent (with non-progressive chalk face developing in 3-6 months)
- o Moisture condensation resistance No failure (ASTM D2247, 100°F, 2200 hours)
- o Pencil hardness (ASTM D3363) 2H
- o Salt Fog Resistance (ASTM B117, 1500 hours) Good
- o Thermal shock (ASTM D2246, 250 cycles) Excellent

RESISTANCE GUIDE (ASTM D3912):

Immersion resistance:

- o Aliphatic hydrocarbon solvents, gasoline, kerosene, fuel oil, jet fuel 77°F
- o Fresh water and sea water up to 115°F
- o Potable water up to 115°F
- Resistance to fumes, splash and spillage:
- o Acid and alkaline salt solutions SEVERE
- o Alkali solutions SEVERE
- o Aromatic hydrocarbon solvents, glycol ethers, alcohols, select chlorinated solvents MODERATE
- o Lubricating oils, cutting oils, animal and vegetable oils and fats SEVERE
- o Skydrol SEVERE
- o Weak solutions of mineral and organic acids SEVERE

* Consult your Shenwin-Williams representative for specific application and performance recommendations.

Epoxy 4.06 MC56 E23; 1/94 2000595 (Rev. 7/95)

CHARACTERISTICS

- o **Color/Finish:** Pure White, Slate Gray/
65 ± 10 units @ 60°
- o **Curing Mechanism:** Crosslink Polymerization
- o **Drying Schedule:**
(temperature & humidity dependent)
@ 77°F and 50% RH @ 10 mils wet:
To Touch: 1 hour
Tack Free: 4 hours
To Recoat: 6 hours min., 72 hrs. max. for immersion, 7 days max. for atmospheric exposure. If max. recoat time is exceeded, brush blast before recoating.
To Cure: 10 days
- * NOTE: For potable water. After complete cure and prior to placing into service, sterilize and thoroughly rinse with potable water. See methods outlined in AWWA C652-85.
- o **Flash Point:** 90°F (Pensky-Martens Closed Cup)
- o **Number of Components:** 2 (4:1 mix)
- o **Packaging:** 5 gallon kit
- o **Pot Life:** 5 hours @ 77°F
- o **Recommended Spreading Rate:** wet mils: 8.0-10.0
dry mils: 5.0-6.0
approx. sq.ft./gal.: 163-195

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

- o **Spreading Rate Coverage:** 978 sq.ft./gal. @ 1 mil dry (theo., no loss)
- o **Shelf Life:** 36 months unopened @ 77°F
- o **Shipping Classification:** Part A - X003; Part B - X002
- o **Shipping Weight (Pure White):** 1's - 8.7 lbs. ± .1 lb; 5's - 55 lbs. ± .1 lb.
- o **"Sweat-In" Time:** 30 minutes @ 65-95°F; 1 hour @ 55-65°F or when humidity is 60-85%
- o **VOC:** (catalyzed) 331 g/l; 2.76 lbs./gal.
- o **Volume Solids:** 61% ± 2% (Pure White)(catalyzed)
- o **Weight Solids:** 77% ± 2% (Pure White)(catalyzed)
- o **Weight/Gallon:** 11.83 ± .1 lbs. (Pure White)(catalyzed)
- o **Analysis:** (catalyzed)

	Pure White	Slate Gray
Pigment by weight	24.6%	24.2%
TiO ₂ (Class III)	7.9%	3.0%
Barium Sulfate	5.2%	8.0%
Silicates	11.5%	13.2%
Vehicle by Weight	75.4%	75.8%
Epoxy Resin	12.9%	13.0%
Polyamide Resin	35.2%	38.0%
Aromatic Solvent	11.8%	11.7%
Volatile Alcohol	11.8%	11.8%
Additives	0.7%	1.3%
Total	100%	100%

NOTE: Not for use in bakeries because of discoloration. Do not tint when used for Immersion service.

SURFACE PREPARATION

Surfaces are to be cleaned as outlined on the label of the appropriate primer. When surfaces are in sound condition, remove fallout, oil, dirt, loose and peeling paint. Always remove contamination before applying subsequent coats.

Steel: For atmospheric exposure, surface preparation must be a minimum Commercial Blast Clean per SSPC-SP6. Immersion Service requires White Metal Blast per SSPC-SP5.

Galvanized Metal and Aluminum: Remove grease, grime, dirt, wax and salts by chemical stripper or solvent cleaning. Rusty galvanizing must be power tool cleaned. Galvanizing may be treated with chromates, silicates, etc. and may require weathering or brush blasting prior to coating. Test areas are recommended to assure adhesion.

Masonry: All masonry must be free of moisture, dirt, oil, grease, loose paint and mortar, masonry dust, etc. Poured, troweled or tilt-up concrete, plaster, mortar, etc. must be thoroughly cured at least 30 days at 75°F. Non-compatible form release compounds, curing membranes, weathered masonry and soft porous cement board must be brush blasted or power tool cleaned to remove mortar, peeling paint, mastic and other loosely adhering contamination.

Concrete Block: New concrete construction block often contains much water even though the surface appears to be dry. Masonry surfaces must be thoroughly dry before filling. Use Kem Cati-Coat Epoxy Filler/Sealer to provide a uniform void-free surface. Kem Cati-Coat Epoxy Filler/Sealer must dry a minimum of 48 hours prior to topcoating with Hi-Solids Catalyzed Epoxy.

Wood: Sand smooth and remove all dust and dirt. Reduce first coat Hi-Solids Catalyzed Epoxy with 1 pint Reducer #54, R7K54, before applying second coat at full body.

Floors: Surface must be thoroughly clean. Lifting, bleeding, or peeling can occur because of improper surface preparation. Sanding wood floors to a clean sound surface and brush blasting or a 10% muriatic acid etch on concrete floors is required. Concrete must be aged at least 30 days @ 75°F and elimination of moisture in or beneath the concrete is required before coating. Reduce the first coat of catalyzed Hi-Solids Catalyzed Epoxy with 1 pint per gallon of Reducer # 54, R7K54.

Previously Painted Surfaces: Properly clean surface of all foreign matter. If surface was originally coated with Hi-Solids Catalyzed Epoxy or other epoxy films, these must be brush blasted or scuff sanded, then spot prime with recommended primer where needed and apply 1 or 2 coats of Hi-Solids Catalyzed Epoxy. If original finish is unknown, test a small area for lifting or bleeding by applying a small area of Hi-Solids Catalyzed Epoxy. If lifting or bleeding occurs, apply a barrier coat of Universal Metal Primer, B50N36, and follow with Hi-Solids Catalyzed Epoxy. For optimum performance or Immersion service, the old coating must be completely removed and the substrate treated as a new surface.

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HI-SOLIDS CATALYZED EPOXY

B62W201 Pure White
B62A213 Slate Gray
B60V20 Hardener

Industrial Maintenance Coatings

RECOMMENDED SYSTEMS

ATMOSPHERIC EXPOSURE:

- o **Steel (Self Prime)**
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 6-12 mils
- o **Steel (Zinc Rich Primer)**
1 ct. Zinc-Clad Primer @ 3-4 mils DFT
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 9-15 mils
- o **Concrete Block:**
1 ct. Heavy Duty Block Filler, B42W46 @ 10 mils DFT, or
1 ct. Kem Cati-Coat Epoxy Filler/Sealer, B42WA9 @ 10 mils DFT
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 16-22 mils
- o **Concrete**
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 6-12 mils
- o **Galvanized (Rusty)**
1 ct. Tile-Clad II, Hi-Bld Primer, B62N71/B60V70 @ 4 mils DFT
NOTE: Topcoat within 90 days.
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 10-16 mils
- o **Galvanized and Aluminum (new)**
1 ct. Wash Primer Green, P60G2/R7K44 @ 0.3 mils DFT
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 6.3-12.3 mils

IMMERSION SERVICE (Note: do not tint)

- o **Steel (requires White Metal Blast per SSPC-SP5)**
2 or 3 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 12-18 mils
- o **Concrete (requires Brush Off Blast)**
2 or 3 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 12-18 mils
- o **Concrete (Non-Potable) (requires Brush Off Blast)**
1 ct. Kem Cati-Coat Epoxy Filler/Sealer @ 10 mils DFT
1 or 2 cts. Hi-Solids Catalyzed Epoxy @ 6 mils DFT/ct.
Total DFT: 16-22 mils

APPLICATION

Clean spray equipment before use with Reducer #54. Strong solvents in the material may loosen old residual paint and cause blocking of equipment. To eliminate possible blocking of equipment during spraying, clean equipment before extended periods of down time.

- o **Application Conditions:**
Temperature (air, surface, material): 55°-95°F (at least 5°F above the dew point)
Relative Humidity: 85% maximum

Methods:

Brush, roll, conventional and airless spray

Airless Spray:

Unit: 2400 psi pressure
Tip: .015"
Hose: 1/4" - 3/8"

Brush:

China bristle

Conventional Spray:

Cap/Tip: 63PB/66
Fluid pressure: 20-25 psi

Atomization

pressure: 80 psi

Roller: 3/8" to 1/2" nap with phenolic core

- o **Reducer:**
Reducer #54, R7K54.
- o **Reduction:**
Up to 1 pint per gallon of catalyzed material as needed to be compatible with existing application and environmental conditions.
- o **Mixing Instructions:**
Thoroughly mix each separate component (A & B). Then mix 4 parts by volume Part A with 1 part by volume Part B. This mixture should be thoroughly mixed to a uniform condition prior to the application of the material. Allow to "sweat-in" as listed in Characteristics section.
- o **Over Zinc Rich Primers:**
Organic: 20% reduction with R7K54.
Inorganic: Reduce first coat 50%. Allow to flash off minimum of 1 hour drytime. Apply second coat at full body.
- o **Tinting:**
75% tint strength. may be tinted with up to 1 oz. per gallon (5 oz. per kit) Blend-A-Color colorants into Part B only. Do not use red. 15 minutes agitation on a mechanical shaker is required for complete dispersion of colorant. Do not tint for Immersion service.
- o **Clean-up:**
Use Reducer #54, R7K54, following supplier's safety cautions.

PRECAUTIONS

DANGER! COMBUSTIBLE. EYE AND SKIN IRRITANT.

CONTAINS XYLENE POLYAMIDE RESINS AND ALCOHOL.

Contents are **FLAMMABLE**. Keep away from heat, sparks and open flame. During use and until all vapors are gone: keep area ventilated; do not smoke; extinguish all flames, pilot lights and heaters; turn off stoves, electric tools, appliances and any other sources of ignition.

VAPOR HARMFUL. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches or dizziness, increase fresh air or wear respiratory protection (TC23C or equivalent) or leave the area.

Avoid contact with skin and eyes. If ingested, seek medical attention immediately. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

NOTICE: Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

DO NOT TAKE INTERNALLY.

KEEP OUT OF THE REACH OF CHILDREN.

SEE MATERIAL SAFETY DATA SHEET.

The information, rating and opinions stated here pertain to the material currently offered, and represent the results of tests believed to be reliable. Published technical data and instructions are subject to change. Consult with your Sherwin-Williams representative for coating recommendations.

FOR SHERWIN-WILLIAMS USE

B62W201	640-0246
B62A231	640-0162
B60V20	630-3168

Section III — PHYSICAL DATA

PRODUCT WEIGHT — see TABLE
 SPECIFIC GRAVITY — 0.96-1.14
 BOILING RANGE — 222-415 °F
 VOLATILE VOLUME — 40-61 %

Section IV — FIRE AND EXPLOSION HAZARD DATA

LITTY CLASSIFICATION FLASH POINT see TABLE LEL 1.0 UEL 6.0
 FLASHING MEDIA:
 a. Dioxide, Dry Chemical, Foam
 FIRE AND EXPLOSION HAZARDS
 Containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Do not use in confined spaces. Do not use in areas where there is a risk of explosion. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to vapors may cause a health hazard. Symptoms may not be immediately apparent. Medical attention.
 FIRE FIGHTING PROCEDURES
 Protective equipment including self-contained breathing apparatus should be used. Water may be ineffective. If water is used, fog nozzles are preferable. Water may be used on closed containers to prevent pressure build-up and possible autoignition or when exposed to extreme heat.

Section V — HEALTH HAZARD DATA

IF EXPOSURE
 may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. Use equipment, follow recommendations for proper use, ventilation, and personal protective equipment.
 Health Hazards
 OF OVEREXPOSURE
 Irritation of eyes, skin and respiratory system. May cause nervous system depression. Overexposure may result in unconsciousness and possibly death.
 17, B62R18 and B62E19 contain Lead. Acute occupational exposure to Lead is uncommon, but in effects and symptoms similar to chronic overexposure described below.
 AD SYMPTOMS OF OVEREXPOSURE
 Irritation, dizziness, nausea, and loss of coordination are indications of excessive exposure or spray mist.
 Irritation and itching or burning sensation may indicate eye or excessive skin exposure.
 CONDITIONS AGGRAVATED BY EXPOSURE
 Cause allergic skin reaction in susceptible persons.
 CY AND FIRST AID PROCEDURES
 INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
 ON SKIN: Wash affected area thoroughly with soap and water.
 IN EYES: Remove contaminated clothing and launder before re-use.
 ALLOWED: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
 CHLORINE HAZARDS
 17, B62R18 and B62E19 contain Lead and Chlorine.
 Chlorine overexposure to Lead may result in damage to the blood-forming, nervous, urinary, reproductive systems (including embryotoxic effects). Symptoms include abdominal pain or pain, constipation, loss of appetite, metallic taste, nausea, insomnia, nervousness, weakness, muscle and joint pain, headache and dizziness.
 Symptoms are listed by IARC and NTP. Although studies have associated exposure to Lead compounds with an increased risk of respiratory cancer, available evidence indicates that Lead Chromate (Chrome Yellow, Molybdate Orange) DOES NOT present this hazard. Tellurite silica (Quartz, Cristobalite) is listed by IARC. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung cancer (silicosis) and possibly cancer.
 Longed overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, blood forming, and reproductive systems.
 Chlorine Glycol is considered an animal teratogen. It has been shown to cause birth defects in rats and mice at high doses when given in drinking water or by gavage. There is no evidence that it causes birth defects in humans.
 Exposure to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such levels are not attainable in the workplace.
 Parts have associated repeated and prolonged overexposure to solvents with permanent brain nervous system damage.

Section VI — REACTIVITY DATA

STABILITY — Stable
 INCOMPATIBILITY
 None known.
 HAZARDOUS DECOMPOSITION PRODUCTS
 By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Metals in Section II
 HAZARDOUS POLYMERIZATION — Will Not Occur
 Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.
 WASTE DISPOSAL METHOD
 Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number. Waste from B62Y17, B62R18 and B62E19 must also be tested for extractability.
 Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section VIII — PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Before initial use of B62Y17, B62R18 and B62E19, consult OSHA's Standard for Occupational Exposure to Lead (29 CFR 1910.1025).
 Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.
 This coating may contain materials classified as nuisance particulates (listed "as dust" in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACCIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding, wirebrushing, abrading, burning or welding the dried film, wear a particulate respirator approved by NIOSH/MSHA for protection against non-volatile materials in Section II. PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated side shields.

OTHER PROTECTIVE EQUIPMENT

Use of barrier cream on exposed skin is recommended.

Section IX — PRECAUTIONS

DCL STORAGE CATEGORY — see TABLE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

B62Y17, B62R18 and B62E19 CONTAIN LEAD. Do not apply Lead-containing coatings to toys and other children's articles, furniture, or any interior surface of a dwelling or facility which may be occupied or used by children. Do not apply on any exterior surface of dwelling units, such as window sills, porches, stairs, or railings to which children may be commonly exposed. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

This Material Safety Data Sheet conforms to the Hazard Communication standard.

29 CFR 1910.1200(g)(4), for similar complex mixtures.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



MATERIAL SAFETY DATA SHEET

THE SHERWIN - WILLIAMS CO.
101 PROSPECT AVE. N.W.
CLEVELAND, OH 44115

EMERGENCY TELEPHONE NO.
(216) 566-2917
INFORMATION TELEPHONE NO.
(216) 566-2902

DATE OF PREPARATION
1 - MAY - 92

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Epoxy Coatings

B62/2

SECTION II — CAS No. HAZARDOUS INGREDIENT (percent by weight)	ACGIH TLV PEL <STEL> <STEL>		OSHA PEL <STEL> <STEL>	Units	Vapor Pressure (mm Hg)	TILE CLAD® HS		Hi-Solids Epoxy			All Weather Epoxy		
	C 50	C 50				B62WZ100 Pure White	B60VZ70 Hardener	B62W201 Pure White	B62A213 Slate Gray	B60V20 Hardener	B62W401 Pure White	B62T404 Ultra-deep Base	B60V70 Hardener
107-21-1 § Ethylene Glycol.				PPM	0.1								
100-41-4 § Ethylbenzene.	100 <125>	100 <125>		PPM	7.1	1	3	3	3		3	4	3
330-20-7 § Xylene.	100 <150>	100 <150>		PPM	5.9	8	19	19	18		17	20	16
742-95-6 Light Aromatic Hydrocarbons.	Not Established	Not Established		PPM	3.8	1	3						4
108-67-8 1,3,5-Trimethylbenzene	25	25		PPM	10.0	2	4						5
95-63-6 § 1,2,4-Trimethylbenzene	25	25		PPM	2.0	2	5						8
78-83-1 2-Methyl-1-Propanol	50	50		PPM	8.7	2							1
320-67-8 Methoxypropanol	100			PPM		8							
111-76-2 § 2-Butoxyethanol	25	25		PPM (Skin)	0.6					24	5	6	9
90-72-2 2,4,6-Tris(dimethylaminomethyl)-phenol	5			Mg/M3 Supplier Limit	0.01						2	3	
Propriet. Epoxy Polymer.	Not Established						65	26	26				51
Propriet. Polyamide.	Not Established					19				76	11	14	
808-60-7 Quartz	0.1	0.1		Mg/M3 as Dust (Resp. Fraction)								20	
807-96-6 Talc	2	2		Mg/M3 as Resp. Dust								11	
001-26-2 Mica.	3	3		Mg/M3 as Resp. Dust				6	6				
727-43-7 Barium Sulfate.	10	10[5]		Mg/M3 as Dust (Resp. Fraction)				10	16				
463-67-7 Titanium Dioxide.	10	10[5]		Mg/M3 as Dust (Resp. Fraction)		47		16	6		24		
Weight per Gallon (lbs.)						12.76	8.79	12.61	12.46	7.94	13.18	11.02	8.47
Percent Water									0.6				
Volatile Organic Compounds (VOC) - Total (lbs./gal.)						3.28	3.07	2.98	2.92	1.87	3.29	3.30	3.98
Volatile Organic Compounds (VOC) - Less Water (lbs./gal.)						3.28	3.07	2.98	2.95	1.87	3.29	3.30	3.98
Flash Point (°F) / DOL Storage Category						85 / 1C	82 / 1C	80 / 1C	80 / 1C	140 / 2	80 / 1C	80 / 1C	82 / 1C
Flammability Classification (Flammable - Combustible)						Flam.	Flam.	Flam.	Flam.	Comb.	Flam.	Flam.	Flam.
HMS (NFPA) Rating (health - fire - reactivity)						3* 3 0	3* 3 0	2* 3 0	2* 3 0	2* 2 0	2* 3 0	2* 3 0	3* 3 0

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

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Epoxy Coatings

B82/3

SECTION II - HAZARDOUS INGREDIENT (Percent by weight)	ACGIH			Vapor Pressure (mm Hg)	Mastic Aluminum		Mastic Aluminum II		Potable Water Epoxy		
	TLV <STEEL>	PEL <STEEL>	OSHA <STEEL>		B62S10 Part A	B60V11 Hardener Part B	B62S100 Part A	B60V100 Hardener Part B	B62L7 Light Blue	B62W7 White	B60V7 Hardener
1 Mineral Spirits	100	100	PPM	2.0	2		2				
2 Ethylbenzene.	100	100	PPM	7.1			1	2	3	3	2
3 Xylene.	<125>	<125>	PPM	5.9	1		7	9	18	18	13
4 1,3,5-Trimethylbenzene	<150>	<150>	PPM	10.0	1	1					
5 1,2,4-Trimethylbenzene	25	25	PPM	2.0	2	2					
6 1-Butanol	50	50	PPM(Skin)	5.5		1					
7 2-Methoxyethylmethoxy- propanol	100	100	PPM	0.4							
8 Methyl Isobutyl Ketone.	<100>	<150>	PPM	16.0							
9 2,4,6-Tri(dimethylaminomethyl)- phenol	50	50	Mg/M3 Supplier Limit	0.01				1			
10 Epoxy Polymer.	5	Not Established			70		34		13	13	26
11 Polyamide.	Not Established	Not Established									
12 Polyamine.	Not Established	Not Established				24		15			26
13 Quartz	0.1	0.1	Mg/M3 as Dust (Resp. Fraction)		14	53	33	56	35	35	11
14 Amorphous Silica.	10	6	Mg/M3 as Dust								
15 Cristobalite	0.05	0.05	Mg/M3 as Resp. Dust								
16 Barium Sulfate.	10	10[5]	Mg/M3 as Dust (Resp. Fraction)			5		5			
17 Titanium Dioxide.	10	10[5]	Mg/M3 as Dust (Resp. Fraction)			2			14	14	
Weight per Gallon (lbs.)	10.48					13.26	12.36	13.36	14.09	14.09	12.38
Volatile Organic Compounds (VOC - lbs./gal.)	0.85					0.78	1.44	1.39	2.99	2.99	1.85
Flash Point (°F)	80					105	74	74	80	80	80
DOL Storage Category	1C					2	1C	1C	1C	1C	1C
Flammability Classification (Flammable - Combustible)	Flam.					Comb.	Flam.	Flam.	Flam.	Flam.	Flam.
HMS (NFPA) Rating (Health - Fire - Reactivity)	5*31					3*20	2*31	3*30	2*30	2*30	2*30

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

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Candidate Coatings

Manufacturer's Product Data and Recommendations

System	Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mil)	Vol. Solids %	Abrasive used	Applicator Equip*	Coat #2
5	Sherwin Williams Hi-Solids Catalyze polyamide epoxy	SP-5		2	5 to 6	61%	Alum. Oxide (24)	B,R,C,A	

Panel Numbers SS= 329-350

Alum=351-372

Coupled=373-386

CPVC=387-404

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	330		11.8	10.9	12.2	11.2	11.6	11.5
SS	331		11.9	12.5	11.7	13.1	11.8	12.3
SS	332		10.9	11.2	10.9	11.1	11	11.1
SS	333		12.9	11.2	12.4	10.9	12.6	11.6
SS	334	2.1	12.2	14.4	12.6	14.9	11.4	13.4
SS	335		13.9	13.4	14.2	13.1	14.8	13.9
SS	336		15	12.8	15.6	12.3	15.6	14.0
SS	337		15.8	13	16.2	13.6	16.3	14.8
SS	338		13.7	14.5	14.1	13.9	14.8	14.2
SS	339	2.2	13.8	14.9	13.3	15.7	13.6	14.4
SS	340		11.9	14.5	12	13.9	12.2	13.1
SS	341		11.1	14.3	10.7	14.5	11.9	14.2
SS	342		13	11.1	13.1	12	12.9	11.6
SS	343		12.7	12.8	12.1	12.1	12.1	12.4
SS	344	2.3	13.5	14.3	14.1	13.9	13.7	13.8
SS	345		10.6	10.9	10.8	10.5	9.4	10.7
SS	346		11.6	12.4	10.6	12.9	10.6	13.5
SS	347		11.9	12.7	10.9	12.5	12.5	12.2
SS	348		13.9	13.1	12.9	13.4	12.9	14.4
SS	349	2.1	13.3	13.3	14.3	12.9	14.5	12.3
SS	350		14.5	13.8	14.4	13.4	14.1	13.7
ALUM	351	2.3	11.3	11.4	11.9	12.1	11.6	11.1
ALUM	352		9.8	10.4	9.6	10.7	10.4	10.7
ALUM	353		8.1	8.9	7.5	9.6	8.3	10.1
ALUM	354		11.7	11.7	11.6	10.8	12.3	11.6
ALUM	355		10.7	12	10.5	13	10.7	11.9
ALUM	356	2.3	10.4	9.1	10.1	8.8	10.5	8.9
ALUM	357		11.2	11.8	11	11.8	10.5	11.7
ALUM	358		11	11.5	11.5	10.8	11.7	11.3
ALUM	359		9	10	8.1	10.2	7.8	9.7
ALUM	360		10.4	10.1	9.3	10.5	9.6	10.5
ALUM	361	2.5	11.5	11	11.4	11.6	11.3	12.5
ALUM	362		10.6	11.4	10.4	11	10.4	11.4
ALUM	363		12.8	12.4	14.3	12.2	13.2	13.2
ALUM	364		14.2	10.7	14.7	10.4	14.7	10.4
ALUM	365		7.1	9	7.5	9.6	7.3	9.2
ALUM	366		12.7	9.8	13.6	9.7	12.9	9.8
ALUM	367		10	10	9.4	10	9.7	9.4
ALUM	368		9.4	11.9	9.8	12	9.6	12
ALUM	369		10.7	13.2	11.2	12.4	11.5	12.8
ALUM	370		10.3	10.8	10.8	10.6	11.1	11
ALUM	371	2.4	11.1	8.1	11.3	7.9	11.5	8.6
ALUM	372		10	10.9	9.4	11.6	9.8	11.2
SS CPL	373	2	12.4	12.2	13.2	12.4	13.2	12.8
AL CPL	373	2.6	12.3	13	11.3	12.5	10.8	12.5

Date

VMA 5 Sherwin 2nc

Coat #

SS CPL	374		13.6	14.2	14.6	14.7	14.6	13.9	14.3
AL CPL	374		11.6	10.8	12.2	11.6	11.9	11	11.5
SS CPL	375		12.5	11.2	12.3	11.2	11.7	10.6	11.6
AL CPL	375		11	11.2	10.7	12	11.1	11.3	11.2
SS CPL	376		12.6	14.4	12.7	14.3	12.8	14.1	13.5
AL CPL	376		10.2	12.3	9.8	12.1	10.1	12.1	11.1
SS CPL	377	2	12.4	11.4	12.3	11.3	12.2	11.3	11.8
AL CPL	377	2.4	11.2	13	11.2	13.3	10.7	13.3	12.1
SS CPL	378		13.3	15.1	13.1	15	13.1	15	14.1
AL CPL	378		13.6	15.9	14.3	15.2	13.1	15.7	14.6
SS CPL	379		13.4	13.6	13.3	13.3	13.1	13.2	13.3
AL CPL	379		11.4	14.4	11.5	14.4	11.6	14.7	13.0
SS CPL	380		13.7	13.5	13.6	13.9	13.1	14	13.6
AL CPL	380		7.6	10	7.8	11.1	7.9	10.1	9.1
SS CPL	381		12	13.6	11.4	14.1	11.7	13.5	12.7
AL CPL	381		11.9	16	11.7	15.9	12.1	15.5	13.9
SS CPL	382	1.9	13.8	12.7	13.1	12.8	13.4	13.2	13.2
AL CPL	382	2.9	11.6	11.3	12	11.5	11.2	11	11.4
SS CPL	383		13.3	12.9	13.1	13	13.7	13.3	13.2
AL CPL	383		10.6	12.5	10.7	13.2	11.3	13.1	11.9
SS CPL	384		17.5	13.5	17.6	14	17.4	13.2	15.5
AL CPL	384		13	12.3	13.4	12.2	12.6	12.4	12.7
SS CPL	385		15.1	13.1	15.7	13.5	14.2	13.4	14.2
AL CPL	385		11.2	15	12.2	15.7	11.8	15.6	13.6
SS CPL	386		16.2	12.9	16	13	16.3	12.7	14.5
AL CPL	386		12.9	11.7	12.4	11	12.3	11.5	12.0
CPVC	387		150	148	22	20	21	10.5	10.5
CPVC	388		156	153	28	25	26.5	13.25	13.3
CPVC	389		158	153	30	25	27.5	13.75	13.8
CPVC	390		153	150	25	22	23.5	11.75	11.8
CPVC	391		154	154	26	26	26	13	13.0
CPVC	392	1.5	149	149	21	21	21	10.5	10.5
CPVC	393		149	147	21	19	20	10	10.0
CPVC	394		150	149	22	21	21.5	10.75	10.8
CPVC	395		155	152	27	24	25.5	12.75	12.8
CPVC	396		150	149	22	21	21.5	10.75	10.8
CPVC	397		148	151	20	23	21.5	10.75	10.8
CPVC	398		156	149	28	21	24.5	12.25	12.3
CPVC	399		152	152	24	24	24	12	12.0
CPVC	400		155	157	27	29	28	14	14.0
CPVC	401		152	151	24	23	23.5	11.75	11.8
CPVC	402		154	147	26	19	22.5	11.25	11.3
CPVC	403		161	162	33	34	33.5	16.75	16.8
CPVC	404		166	158	38	30	34	17	17.0
Adh	405		10.7	12.3	10.9	12.9	10.9	12.6	11.7
Adh	406		12.2	11	12	11.3	11.5	11.1	11.5
Tabor	407		13.1	12.3	14.7	13.4	14.5	13.6	13.6
Tabor	408		14.4	15.1	15	15.4	14.3	14.7	14.9
Impact	409		13.4	12.8	13.2	12.8	13.1	13.4	13.1
Impact	410		13.4	11.8	13.7	11	12.8	11.3	12.3

average

12.1

12.3

12.1

12.4

12.1

12.3

12.3

Summary of Work Performed: *Sherwin Williams (Repair)*

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	<i>Sherwin Williams</i>		
Batch Numbers (Record)	<i>A) 640-0246 B) 630-3168</i>		
Material Temperature/Potlife (Record)			
Correct Thinner/Amount (Record)			
Time of Mix (Record)	<i>1:55</i>		
Mix Ratio (Record)	<i>4:1</i>		
Induction Period (Record)	<i>30 min</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>74°</i> WB: <i>64°</i> RH: <i>58%</i> DP: <i>59°</i> ST:		
Applicator's Name (Record)	<i>C. Poche'</i>		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)			
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)	<i>Brush</i>		
Time Application Complete (Record)	<i>2:35</i>		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: <i>C. Poche'</i>
Date: <i>8/1/94</i>
Report No.
Page <i>1</i> of <i>1</i>

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT: NASA

JCB NO: H-6341

Summary of Work Performed: Apply 2nd Coat Sherwin Williams

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfgr/Product Name (Record)	S/W Hi-Solids Epoxy		
Batch Numbers (Record)	A-606703 T2583B		
Material Temperature/Potlife (Record)	5 hr		
Correct Thinner/Amount (Record)	S/W Reducer #54		
Time of Mix (Record)	10:59 12:40		
Mix Ratio (Record)	4:1		
Induction Period (Record)	30 min 30 min		

61% SBV

APPLICATION

Ambient Conditions (Record)	DB: 73°F WB: 64°F RH: 61% DP: 59" ST: 69°F		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)	11:45 am 1:30 pm		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)	N/A		
Intercoat Cleanliness		✓	
Proper Pot Agitation	N/A		
Application Equipment (Record)	Devilbiss 64 cap		
Time Application Complete (Record)	1:00 pm 2:30 pm		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: K. Baggett

Date: 4/1/94

Report No.

Page 01

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT: NASA

JCB NO: H-634

Summary of Work Performed: Apply Sherwin Williams Hi-Solids Epoxy

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	Sherwin Williams Hi-Solids Epoxy		
Batch Numbers (Record)	A-606703 T2583B-1		
Material Temperature/Potlife (Record)	5 hr.		
Correct Thinner/Amount (Record)	S/W Reducer #54		
Time of Mix (Record)	1:30 pm 2:15 pm		
Mix Ratio (Record)	4:1		
Induction Period (Record)	30 min		

61% SBV

APPLICATION

Ambient Conditions (Record)	DB: 78°F WB: 65° RH: 49% DP: 57° ST: 74°		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)		✓	
Compressed Air Cleanliness		✓	
Time Application Began (Record)	2:10 pm 2:45 pm		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)	N/A		
Intercoat Cleanliness	N/A		
Proper Pot Agitation	N/A		
Application Equipment (Record)	Devilbiss 64 cap		
Time Application Complete (Record)	2:30 3:50 pm		

INSPECTION

Visual Appearance		✓	
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: Not Thinned

Could easily hang 10 mils wet

Inspector: A. Baggott

Date: 4/18/94

Report No.

Page of

Panel/Tag #	Front	Front	Back
329 SS	PRESS-O-FILM™ No. <u>309 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>309 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
334 SS	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.0</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
339 SS	PRESS-O-FILM™ No. <u>339 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>339 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
344 SS	PRESS-O-FILM™ No. <u>344 F</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>344 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
349 SS	PRESS-O-FILM™ No. <u>349 F</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>349 F</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
351 AL	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
356 AL	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
361 AL	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
366 AL	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
371 AL	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
373 AL SS	PRESS-O-FILM™ No. <u>1.7</u> Mils. <u>1.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.0</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.9</u> Mils. <u>1.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
373 AL	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.6</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
377 SS	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.9</u> Mils. <u>1.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.0</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
377 AL	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
382 SS	PRESS-O-FILM™ No. <u>1.9</u> Mils. <u>1.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.7</u> Mils. <u>1.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
382 AL	PRESS-O-FILM™ No. <u>3.4</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.6</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
392 CPVC	PRESS-O-FILM™ No. <u>1.5</u> Mils. <u>1.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.5</u> Mils. <u>1.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.5</u> Mils. <u>1.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
300			

Candidate Coatings

Manufacturer's Product Data and Recommendations

System

5

Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mil)	Vol. Solids %	Abrasive used	Applicate Equip*
Sherwin Williams Hi-Solids Catalyze polyamide epoxy	SP-5		2	5 to 6	61%	Alum. Oxide (24)	B,R,C,A

Panel Numbers SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	329		3.6	3.9	4.2	3.7	4.0	3.9	#DIV/0!
SS	330		4.0	3.7	3.9	3.7	3.7	3.9	#DIV/0!
SS	331		3.5	3.6	3.6	3.6	3.5	3.7	#DIV/0!
SS	332		5.0	3.8	5.0	3.7	5.3	4.1	#DIV/0!
SS	333		4.9	3.7	5.3	3.5	5.4	3.5	#DIV/0!
SS	334		4.8	5.7	4.5	5.6	4.6	5.6	#DIV/0!
SS	335		5.1	4.2	8.2	4.5	5.3	4.2	#DIV/0!
SS	336		4.8	3.5	4.9	3.5	4.9	3.4	#DIV/0!
SS	337		5.2	4.8	5.1	5.7	5.4	4.5	#DIV/0!
SS	338		5.4	4.7	5.4	4.5	5.3	4.4	#DIV/0!
SS	339		5.3	4.5	5.3	4.3	5.8	4.0	#DIV/0!
SS	340		4.9	4.3	5.0	4.1	5.1	4.3	#DIV/0!
SS	341		4.7	3.7	4.5	4.2	4.2	4.0	#DIV/0!
SS	342		5.1	4.1	5.2	4.2	5.1	4.2	#DIV/0!
SS	343		3.6	4.3	4.4	4.1	3.9	4.2	#DIV/0!
SS	344		4.4	3.2	4.3	3.4	4.6	3.3	#DIV/0!
SS	345		3.6	3.7	3.4	3.9	3.5	4.1	#DIV/0!
SS	346		4.2	4.7	4.6	4.9	4.2	5.0	#DIV/0!
SS	347		5.6	4.7	5.2	5.0	5.5	5.1	#DIV/0!
SS	348		5.4	4.8	5.5	4.8	5.5	4.7	#DIV/0!
SS	349		4.5	3.8	4.3	4.1	4.6	3.6	#DIV/0!
SS	350		4.7	3.7	4.6	4.1	4.7	4.4	#DIV/0!
ALUM	351		5.2	4.4	5.2	4.3	5.1	4.2	#DIV/0!
ALUM	352		5.1	3.8	5.2	3.9	5.2	4.0	#DIV/0!
ALUM	353		4.1	3.9	4.0	4.6	4.1	4.0	#DIV/0!
ALUM	354		6.5	4.6	6.8	4.0	7.2	4.1	#DIV/0!
ALUM	355		4.3	4.4	3.8	4.3	3.9	4.3	#DIV/0!
ALUM	356		4.3	2.6	4.1	2.6	4.2	2.6	#DIV/0!
ALUM	357		5.6	3.2	5.5	3.9	5.6	3.7	#DIV/0!
ALUM	358		5.2	3.8	5.2	5.5	5.4	5.6	#DIV/0!
ALUM	359		4.0	3.6	3.7	3.8	3.8	4.0	#DIV/0!

Hi-Solids Catalyzed Epoxy

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	360	5.7	4.5	5.4	4.6	5.7	4.4	#DIV/0!
ALUM	361	4.5	4.6	4.4	4.6	4.5	4.5	#DIV/0!
ALUM	362	5.8	4.1	4.3	3.9	4.0	3.7	#DIV/0!
ALUM	363	5.8	3.0	5.5	5.25	5.1	3.2	#DIV/0!
ALUM	364	5.1	3.6	4.9	3.2	4.9	4.1	#DIV/0!
ALUM	365	3.7	4.2	2.9	4.1	3.7	4.1	#DIV/0!
ALUM	366	4.4	4.1	4.3	3.5	4.4	3.4	#DIV/0!
ALUM	367	4.8	4.7	4.4	4.9	4.9	4.8	#DIV/0!
ALUM	368	4.7	6.0	4.6	5.9	4.5	5.4	4.8
ALUM	369	5.0	4.6	4.8	4.0	4.8	4.4	#DIV/0!
ALUM	370	3.7	4.2	3.5	4.7	3.6	4.0	#DIV/0!
ALUM	371	4.9	3.1	4.2	3.3	4.2	3.2	#DIV/0!
ALUM	372	4.3	3.5	4.1	3.8	4.1	3.5	#DIV/0!
SS CPL	373	3.9	4.5	4.2	4.6	4.0	4.4	#DIV/0!
AL CPL	373	3.8	4.3	4.3	4.0	4.2	4.2	#DIV/0!
SS CPL	374	5.3	4.8	5.1	4.9	4.9	4.7	#DIV/0!
AL CPL	374	4.3	4.5	4.2	4.4	4.5	4.7	#DIV/0!
SS CPL	375	4.8	4.2	4.8	4.7	4.8	5.3	#DIV/0!
AL CPL	375	4.8 ^{2.5}	4.2 ^{4.8}	3.9	4.6	3.9	4.7	#DIV/0!
SS CPL	376	4.7	4.4	5.1	4.5	4.6	4.5	#DIV/0!
AL CPL	376	4.0	4.4	3.9	4.3	4.0	4.3	#DIV/0!
SS CPL	377	3.6	4.3	3.7	4.1	3.6	3.9	#DIV/0!
AL CPL	377	4.4	4.7	4.6	4.9	4.4	4.1	#DIV/0!
SS CPL	378	4.3	6.0	4.6	5.7	4.3	5.4	#DIV/0!
AL CPL	378	4.4	5.0	4.6	4.7	4.6	5.1	#DIV/0!
SS CPL	379	3.5	4.6	3.3	4.9	3.2	4.6	#DIV/0!
AL CPL	379	4.5	4.9	4.5	5.4	4.9	4.8	#DIV/0!
SS CPL	380	4.1	5.0	4.1	4.7	3.9	4.4	#DIV/0!
AL CPL	380	3.1	4.7	3.3	4.4	3.3	4.2	#DIV/0!
SS CPL	381	4.2	5.2	3.9	5.4	4.1	5.6	#DIV/0!
AL CPL	381	5.4	4.8	5.1	4.6	5.1	4.6	#DIV/0!
SS CPL	382	4.1	3.1	4.0	3.0	3.9	3.1	#DIV/0!
AL CPL	382	5.0	4.4	5.2	4.3	4.9	4.4	#DIV/0!
SS CPL	383	4.6	4.2	4.9	4.3	4.9	4.4	#DIV/0!
AL CPL	383	6.4	4.4	6.1	4.3	6.8	4.4	#DIV/0!

Hi-Solids Catalyzed Epoxy

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL	384	4.9	3.8	5.1	4.0	5.0	4.6	#DIV/0!
AL CPL	384	5.3	3.8	4.9	3.7	4.8	2.9	#DIV/0!
SS CPL	385	4.2	4.7	4.7	4.4	4.7	4.5	#DIV/0!
AL CPL	385	4.0	4.7	4.1	4.9	4.1	5.0	#DIV/0!
SS CPL	386	6.2	3.9	6.7	3.8	6.6	4.5	#DIV/0!
AL CPL	386	4.6	4.4	4.4	3.9	4.6	4.3	#DIV/0!
CPVC	387							#DIV/0!
CPVC	388							#DIV/0!
CPVC	389							#DIV/0!
CPVC	390							#DIV/0!
CPVC	391							#DIV/0!
CPVC	392							#DIV/0!
CPVC	393							#DIV/0!
CPVC	394							#DIV/0!
CPVC	395							#DIV/0!
CPVC	396							#DIV/0!
CPVC	397							#DIV/0!
CPVC	398							#DIV/0!
CPVC	399							#DIV/0!
CPVC	400							#DIV/0!
CPVC	401							#DIV/0!
CPVC	402							#DIV/0!
CPVC	403							#DIV/0!
CPVC	404							#DIV/0!
Adh	405	5.3	4.7	5.2	5.0	5.2	4.2	#DIV/0!
Adh	406	4.4	4.5	5.0	4.8	4.5	4.8	#DIV/0!
Tabor	407	5.6	4.8	5.6	4.6	5.3	5.1	#DIV/0!
Tabor	408	7.2	6.3	7.1	6.8	7.2	6.4	#DIV/0!
Impact	409	5.9	4.6	5.3	4.5	5.4	4.4	#DIV/0!
Impact	410	4.8	4.6	4.7	4.9	4.6	4.8	#DIV/0!

Date

NASA 5 Sherwin Williams

Coat #

Candidate Coatings

Manufacturer's Product Data and Recommendations

System

5

Manufacturer Product	Surface Prep	Profile mills	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Applicate Equip*	Coat #
Sherwin Williams Hi-Solids Catalyze polyamide epoxy	SP-5		2	5 to 6	61%	Alum. Oxide (24)	B,R,C,A	

Panel Numbers		SS=	Alum=		Coupled=		CPVC=		Average DFT
Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT		
SS	329								#DIV/0!
SS	330		11.8	10.9	12.2	11.2	11.6	11.0	#DIV/0!
SS	331		11.4	12.5	11.7	13.1	11.8	12.8	#DIV/0!
SS	332		10.9	11.2	10.9	11.1	11.0	11.6	#DIV/0!
SS	333		12.9	11.2	12.4	10.9	12.6	10.8	#DIV/0!
SS	334		12.2	14.4	12.4	14.9	11.4	14.6	#DIV/0!
SS	335		13.9	13.4	14.2	13.1	14.8	13.7	#DIV/0!
SS	336		15	12.8	15.6	12.3	15.4	12.7	#DIV/0!
SS	337		15.8	13	16.2	13.6	16.3	13.7	#DIV/0!
SS	338		13.7	14.5	14.1	13.9	14.8	14.2	#DIV/0!
SS	339		13.8	14.9	13.3	15.2	13.6	15.2	#DIV/0!
SS	340		11.9	14.5	12.0	13.9	12.2	13.1	#DIV/0!
SS	341		11.1	14.3	10.7	14.5	11.9	14.2	#DIV/0!
SS	342		13	11.1	13.1	12.0	12.9	11.6	#DIV/0!
SS	343		12.7	12.8	12.1	12.1	12.1	12.4	#DIV/0!
SS	344		13.5	14.3	14.1	13.9	13.7	13.8	#DIV/0!
SS	345		10.6	10.9	10.8	10.5	9.4	10.7	#DIV/0!
SS	346		11.6	12.4	10.4	12.9	10.6	13.5	#DIV/0!
SS	347		11.9	12.7	10.9	12.5	12.5	12.2	#DIV/0!
SS	348		13.9	13.1	12.9	13.4	12.9	14.4	#DIV/0!
SS	349		13.3	13.3	14.3	12.9	14.5	12.3	#DIV/0!
SS	350		14.5	13.8	14.4	13.4	14.1	13.7	#DIV/0!
ALUM	351		11.3	11.4	11.9	12.1	11.6	11.1	#DIV/0!
ALUM	352		9.8	10.4	9.6	10.7	10.4	10.7	#DIV/0!
ALUM	353		8.1	8.9	7.5	9.6	8.3	10.1	#DIV/0!
ALUM	354		11.7	11.7	11.4	10.8	12.3	11.4	#DIV/0!
ALUM	355		10.7	12.0	10.5	13.0	10.7	11.9	#DIV/0!
ALUM	356		10.4	9.1	10.1	8.8	10.5	8.9	#DIV/0!
ALUM	357		11.2	11.8	11.0	11.8	10.5	11.7	#DIV/0!
ALUM	358		11.0	11.5	11.5	10.8	11.7	11.3	#DIV/0!
ALUM	359		9.0	10.0	8.1	10.2	7.8	9.7	#DIV/0!
ALUM	360		10.4	10.1	9.3	10.5	9.6	10.5	#DIV/0!
ALUM	361		11.5	11.0	11.4	11.4	11.3	12.5	#DIV/0!

Post Washback - Mont. Green - Sherwin Williams
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Coat #

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	362		10.8	11.1	10.4	11.0	10.4	11.4	#DIV/0!
ALUM	363		12.8	12.4	14.3	12.2	13.2	13.2	#DIV/0!
ALUM	364		14.2	10.7	14.7	10.4	14.7	10.4	#DIV/0!
ALUM	365		7.1	9.0	7.5	9.6	7.3	9.2	#DIV/0!
ALUM	366		12.1	9.8	13.4	9.7	12.9	9.8	#DIV/0!
ALUM	367		10.0	10.0	9.4	10.0	9.7	9.4	#DIV/0!
ALUM	368		9.4	11.9	9.8	12.0	9.4	12.0	#DIV/0!
ALUM	369		10.7	13.2	11.2	12.4	11.5	12.8	#DIV/0!
ALUM	370		10.3	10.8	10.8	10.6	11.1	11.0	#DIV/0!
ALUM	371		11.1	8.1	11.3	7.9	11.5	8.6	#DIV/0!
ALUM	372		10.0	10.9	9.4	11.8	9.8	11.2	#DIV/0!
SS CPL	373		12.4	12.2	13.2	12.4	13.2	12.8	#DIV/0!
AL CPL	373		12.3	13.0	11.3	12.5	10.8	12.5	#DIV/0!
SS CPL	374		13.6	14.2	14.6	14.7	14.6	13.9	#DIV/0!
AL CPL	374		11.6	10.8	12.2	11.6	11.9	11.0	#DIV/0!
SS CPL	375		12.5	11.2	12.3	11.2	11.7	10.6	#DIV/0!
AL CPL	375		11.0	11.2	10.7	12.0	11.1	11.3	#DIV/0!
SS CPL	376		12.4	14.4	12.7	14.3	12.8	14.1	#DIV/0!
AL CPL	376		10.2	12.3	9.8	12.1	10.1	12.1	#DIV/0!
SS CPL	377		12.4	11.4	12.3	11.3	12.2	11.3	#DIV/0!
AL CPL	377		11.2	13	11.2	13.3	10.7	13.3	#DIV/0!
SS CPL	378		13.3	15.1	13.1	15	13.1	15	#DIV/0!
AL CPL	378		13.4	15.9	14.3	15.2	13.1	15.7	#DIV/0!
SS CPL	379		13.4	13.6	13.3	13.3	13.1	13.2	#DIV/0!
AL CPL	379		11.4	14.4	11.5	14.4	11.6	14.7	#DIV/0!
SS CPL	380		13.7	13.5	13.4	13.9	13.1	14	#DIV/0!
AL CPL	380		7.4	10.0	7.8	11.1	7.9	10.1	#DIV/0!
SS CPL	381		12.0	13.6	11.4	14.1	11.7	13.5	#DIV/0!
AL CPL	381		11.9	16	11.7	15.9	12.1	15.5	#DIV/0!
SS CPL	382		13.8	12.7	13.1	12.8	13.4	13.2	#DIV/0!
AL CPL	382		11.6	11.3	12.0	11.5	11.2	11.0	#DIV/0!
SS CPL	383		13.3	12.9	13.1	13.0	13.7	13.3	#DIV/0!
AL CPL	383		10.4	12.5	10.7	13.2	11.3	13.1	#DIV/0!
SS CPL	384		17.5	13.5	17.6	14	12.4	13.2	#DIV/0!
AL CPL	384		13.0	12.3	13.4	12.2	12.4	12.4	#DIV/0!
SS CPL	385		15.1	13.1	15.7	13.5	14.2	13.4	#DIV/0!
AL CPL	385		11.2	15	12.2	15.7	11.8	15.4	#DIV/0!
SS CPL	386		14.2	12.9	14	13	16.3	12.7	#DIV/0!

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NASA 5 Sherwin Williams

Coat #

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
AL CPL	386	12.1	12.9	11.7	12.4	11.0	12.3	11.5	#DIV/0!
CPVC	387		150	148					#DIV/0!
CPVC	388		156	153					#DIV/0!
CPVC	389		158	153					#DIV/0!
CPVC	390		153	150					#DIV/0!
CPVC	391		154	154					#DIV/0!
CPVC	392		149	149					#DIV/0!
CPVC	393		149	147					#DIV/0!
CPVC	394		150	149					#DIV/0!
CPVC	395		155	152					#DIV/0!
CPVC	396		150	149					#DIV/0!
CPVC	397		148	151					#DIV/0!
CPVC	398		156	149					#DIV/0!
CPVC	399		152	152					#DIV/0!
CPVC	400		155	157					#DIV/0!
CPVC	401		152	151					#DIV/0!
CPVC	402		154	147					#DIV/0!
CPVC	403		161	162					#DIV/0!
CPVC	404		166	158					#DIV/0!
Adh	405		10.7	12.3	10.9	12.9	10.9	12.6	#DIV/0!
Adh	406		12.2	11.0	12.0	11.3	11.5	11.1	#DIV/0!
Tabor	407		13.1	12.3	14.7	13.4	14.5	13.6	#DIV/0!
Tabor	408		14.4	15.1	15.0	15.4	14.3	14.7	#DIV/0!
Impact	409		13.4	12.9	13.2	12.8	13.1	13.4	#DIV/0!
Impact	410		13.4	11.8	13.7	11.0	12.8	11.3	#DIV/0!

* Foritech 2000
RAB

System #6 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mld)	Vol. Solids %	Abrasive used	Appl Equip
UTP Welding Technology UTPlast Super Polyamide 11	SP-5	3	2	8	100%	sand	Spray-Jet

Panel Numbers SS= 411-432 Alum= 433-454 Coupled= 455-468 CPVC= 469-486

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 411	2.8	22.6	27.9	22	27.8	22.2	27.9	25.1
SS 412	2.7	15.4	17.2	15.3	17	15.5	17.4	16.3
SS 413	3	16	15.8	15.8	17	16.1	16.9	16.3
SS 414	2.9	17.6	16.2	17.7	16.3	17.6	16.2	16.9
SS 415	2.5	23.7	23.8	23.8	23.5	24.2	23.6	23.8
SS 416		28.4	30.8	27.3	31	26.6	30.8	29.2
SS 417		24	23.7	24	23.8	24.1	23.7	23.9
SS 418		18.4	16.4	18.2	16.5	18.3	16.5	17.4
SS 419		22.2	20.8	21.7	21	22.3	21.2	21.5
SS 420		20.2	18.4	20.2	18.4	20.1	18.5	19.3
SS 421		28.4	25.6	28.4	25.7	28.5	25.3	27.0
SS 422		28	28.8	28	28.8	27.8	28.5	28.3
SS 423		22.1	21.8	21.2	21.6	22.2	21.8	21.8
SS 424		30.5	33.5	30.8	33.3	30.6	33.1	32.0
SS 425		23.1	19.6	22.5	20	22.1	19.6	21.2
SS 426		12.5	14.9	11.9	15	12.1	14.6	13.5
SS 427		20	22.4	20.1	22.6	20	23	21.4
SS 428		28.5	33.7	28.5	33.7	28.1	34.2	31.1
SS 429		29.6	27.5	29.7	27.9	29.4	28.2	28.7
SS 430		31.4	27.5	31.1	28.2	30.9	27.6	29.5
SS 431		34.1	27.2	33.1	27.5	33.3	27.3	30.4
SS 432		28.3	29.9	27.9	29.9	27.8	29.8	28.9
ALUM 433	433	28	33.5	28.1	34	28.1	33.3	30.8
ALUM 434		20.4	26.8	20.4	26.8	20.3	26.3	23.5
ALUM 435		26.4	32.1	26.4	32.4	27	32	29.4
ALUM 436		30	33.3	30.5	31.7	30.5	32.3	31.4
ALUM 437		30.3	37.1	30.2	37.1	29.8	37.1	33.6
ALUM 438	4.2	13.2	23.9	13	23.7	13.1	23.9	18.5
ALUM 439		17.8	28.8	17.8	28.1	17.6	28.3	23.1
ALUM 440		34.3	29.8	34.2	30.1	33.2	29.6	31.9
ALUM 441		24.3	31	23.6	32.6	24.1	31.9	27.9
ALUM 442		39.6	30.9	40.6	30.4	39.8	30.5	35.3
ALUM 443		29.9	19.9	29.9	19	29.9	19.8	24.7
ALUM 444		33.5	39.3	34.9	39.1	36	40	37.1
ALUM 445		24.8	31.4	25.4	31.3	25.1	31.4	28.2
ALUM 446		19.5	24.4	20.2	24.4	20	24.2	22.1
ALUM 447		37.5	41	37.6	41.1	37.6	40.7	39.3
ALUM 448	4.4	28.5	24.4	28.9	24.5	29.5	24.1	26.7
ALUM 449		29.1	39.1	28.6	39.5	28.9	40.4	34.3
ALUM 450		28.3	33	28.5	33.3	28.2	32.8	4.8
ALUM 451		27.1	22.5	26.3	22.5	26.1	21.2	24.3
ALUM 452		27.1	28.9	27.1	28.8	27	29.2	28.0
ALUM 453	4.3	17.3	24.6	17.6	24.6	17	24.5	20.9
ALUM 454		21	25	20.8	24.5	21.5	25	23.0
SS CPL 455		22.8	23.4	22.8	24.4	23.7	24.5	23.6

AL CPL	455		29.2	26.2	27.7	26.7	26.7	27.3	27.6
SS CPL	456	2.6	33.6	29.6	34.9	29	34.7	30.4	32.0
AL CPL	456	4.5	18.7	21.8	18.8	21.5	19.1	24.2	20.7
SS CPL	457		24.9	23.9	25.3	23.8	24.3	22.6	24.1
AL CPL	457		22	28.8	21.5	28.3	22.6	29	25.4
SS CPL	458		31.3	24.5	31.8	24	31.6	23.3	27.8
AL CPL	458		24.4	28.1	26.1	27.4	25.5	27.6	26.5
SS CPL	459		20.1	20.8	20.1	20.4	19.8	20.9	20.4
AL CPL	459		18.7	26.6	19.7	26.6	19.3	26	22.8
SS CPL	460		22.5	23	23.8	23.7	23	23.8	23.3
AL CPL	460		21.6	27.8	21.9	26.3	21.7	28	24.6
SS CPL	461		31.2	26.3	31.3	26.3	31.5	26.2	26.8
AL CPL	461		20.1	25.3	19.2	25.3	19.7	24.1	22.3
SS CPL	462	2.8	19.3	24.9	19	25	19.2	25.2	22.1
AL CPL	462	4.1	16.9	24.1	18.7	24.5	18.1	26.4	21.5
SS CPL	463		20.4	24.2	21.2	24.2	21	24	22.5
AL CPL	463		21.8	26.4	20.7	26.1	21.7	25.1	23.6
SS CPL	464		30.5	31.3	31.3	31	30.1	30.9	30.9
AL CPL	464		24.2	22.1	23.8	21.9	23.7	21.7	22.9
SS CPL	465		21.7	21.2	21.9	20.9	22.8	20.9	21.6
AL CPL	465		20.8	25.7	22.2	25.8	23.3	26.2	24.0
SS CPL	466		24.6	20.7	24	20	24.4	20.7	22.4
AL CPL	466		18.2	21.5	18.5	21.6	17.5	21.1	19.7
SS CPL	467	2.4	20.4	23.3	22.2	22.9	21.6	23	22.2
AL CPL	467	4.1	22.1	20.1	21.4	20.9	21.2	20.5	21.0
SS CPL	468		22.7	22.4	23.5	21.9	23.4	22	22.7
AL CPL	468		23.3	20.3	24.1	21.1	23.9	21	22.3
CPVC	469		146	158	18	30	24	12.0	12.0
CPVC	470		176	173	48	45	46.5	23.3	23.3
CPVC	471		189	201	61	73	67	33.5	33.5
CPVC	472		166	168	38	40	39	19.5	19.5
CPVC	473		167	168	39	40	39.5	19.8	19.8
CPVC	474		176	171	48	43	45.5	22.8	22.8
CPVC	475		178	179	50	51	50.5	25.3	25.3
CPVC	476		168	173	40	45	42.5	21.3	21.3
CPVC	477		161	167	33	39	36	18.0	18.0
CPVC	478		172	173	44	45	44.5	22.3	22.3
CPVC	479		177	173	49	45	47	23.5	23.5
CPVC	480		165	168	37	40	38.5	19.3	19.3
CPVC	481		171	174	43	46	44.5	22.3	22.3
CPVC	482		172	170	44	42	43	21.5	21.5
CPVC	483		169	168	41	40	40.5	20.3	20.3
CPVC	484		173	175	45	47	46	23.0	23.0
CPVC	485		173	171	45	43	44	22.0	22.0
CPVC	486		163	162	35	34	34.5	17.3	17.3
Adh	487		15.6	15.6	15.5	17.5	15.6	16	16.0
Adh	488		18.3	18.5	18.3	19	18.1	20.9	18.9
Tabor	489		21	22.9	21.6	21.7	21.5	21.7	21.7
Tabor	490		15.2	13.3	15.8	14.7	15.8	14.8	14.9
Impact	491		13.4	15.7	12.7	15.8	13.5	15.6	14.5
Impact	492		15.3	13.4	14.9	14	15.2	13.8	14.4

average 24.5 26.0 24.5 25.9 24.5 26.0 23.7

UTPlast Super

Flame spraying: UNI-SPRAY-JET
MINI-SPRAY-JET
UTPlast F-311

Applications fields

UTPlast Super is the ideal long term protection for all metals and materials which require resistance against one or several of the following possibilities of attack:

- corrosion (by seawater, corrosive atmosphere, hydrocarbons, solvents)
- abrasion (by particle flow)
- wear (by friction with other materials)

UTPlast Super also offers high electrical insulation. Due to its high melting point, it is resistant against boiling water and against a large number of chemical products, also at elevated temperatures. Due to the various colors in which this product is available, it also serves for decoration purposes.

Applications for UTPlast Super are found in:

- chemical industry
- pharmaceutical industry
- water and sewage treatment
- marine industry

Properties

UTPlast Super is an easily applicable powder giving a smooth and homogeneous deposit. It can be applied on all materials supporting a temperature as high as its melting point. Information on resistance against various chemicals and media is available on demand.

Technical Data

Chemical composition	: Polyamide 11
Particle shape	: Irregular
Grain size range	: - 200 μm + 80 μm
Typical density (g/cm ³) approx.	: 0.49
Shore hardness D approx.	: 75
Recommended coating thickness	: 0.5 - 1.0 mm (0.02 - 0.04")
Melting point	: 185° C (365°F)
Recommended maximum service temperature	: 120° C (250°F)
Powder consumption per 0.5 mm (0.02") coat thickness	: 0.6 kg/m ² (0.122 lb/ft ²)

Surface Preparation

Sandblasting (metallic clean) with electro corundum, aluminum oxide (0.25 - 0.5 mm) (0.01 - 0.02") or grinding metallic clean, if possible, with inorganic bound disc, free of oil, grease or other liquids.

UTP Welding Technology

P.O. Box 721678 • Houston, Texas 77272-1678 • (713) 499-1212 • (800) 527-0791 • Fax: (713) 499-4347

UTPlast Super

Spraying Parameters

Oxygen pressure	: 2.5 bar (36 PSI)
Acetylene pressure	: 0.5 bar (7 PSI)
Propane	: 0.4 bar (6 PSI)
Compressed air pressure	: 1.5 - 2.0 bar (21.6 - 28 PSI)
Flame adjustment knob "A"	: Pos. "N" = Neutral
Powder module head	: black* (+ refillable powder container* if available)
Powder measuring slide valve	: front position
Spray nozzle	: USJ-L/T*
Ring nozzle	: USJ-B/R*
Powder pressure injector	: N (0.45)
Spray distance	: 250 - 300 mm (9.8 - 11.8")
Preheating temperature	: approx. 80°C ~ (176°F)

* = special accessories

Important! Keep pistol and flame moving. Never concentrate the flame on one spot to avoid overheating of the plastic layer.

Move pistol alternatively horizontally and vertically to obtain complete covering of the surface. If necessary, the surface can be smoothed by careful "brushing" with flame and air (without depositing powder).

Without compressed air, it is impossible to spray UTPlast.

UTP Welding Technology

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May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200; Standard must be consulted for specific requirements.

SECTION I IDENTITY

Product 91-7035 UTPLAST EXTRA 20 GREY ABS or other spec.
 Manufacturer/Distributor Name UTF WELDING MATERIALS, INC.
 Address 10401 GREENROUGH STAFFORD, TEXAS 77477
 Telephone Number (713) 499-1212 1-800-527-0791
 Date Prepared REVISED 07/93

SECTION II HAZARDOUS INGREDIENTS/COMPONENTS

Chemical Identity CAS OSHA PEL(mg/m3) OSHA TLV(mg/m3) HLB Code

CHEMICAL FAMILY: ETHYLENE/ACRYLIC ACID

POWDER COATINGS SHOULD BE TREATED AS A NUISANCE DUST
 (PARTICULATE NOT OTHERWISE REGULATED OR CLASSIFIED).
 SEE SECTION VI FOR MORE INFORMATION.

IMPORTANT! This section covers the material from which this product is manufactured. The fumes and gases produced during welding with this product are covered by SECTION VI. The term "hazardous" in "Hazardous Materials" should be interpreted as a term required and defined in OSHA 29 CFR and does not necessarily imply the existence of any hazard.

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: N/A Specific Gravity(H₂O=1): 20.9
 Vapor Pressure(mmHg.): N/A Melting Point: DEGREES C: 50-120
 Vapor Density (AIR=1): N/A Evaporation Rate: N/A
 Solubility in Water: NEGLIGIBLE
 Appearance and Odor: FINELY DIVIDED POWDER - SLIGHT, IF ANY, ODOR
 Volatiles by Weight: CH₂ (EPA REFERENCE METHOD 24 (ASTM D 2569-06))
 MEASURED VOLATILES ARE ABSORBED WATER.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point(Method Used): N/A Flammable Limits: N/A
 LEL: 30 - 70 gms/m3 UEL-N/A
 Extinguishing Media: FUMES, CARBON DIOXIDE, WATER, DRY CHEMICAL.
 Special Fire Fighting Procedures: PRODUCTS OF COMBUSTION MAY BE TOXIC; AVOID BREATHING FUMES. FIRE FIGHTERS SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND BUNKER BOOTS), INCLUDING A POSITIVE PRESSURE, RITOH LISTED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.
 Unusual Fire and Explosion Hazards: DUST CAN FORM AN EXPLOSIVE MIXTURE WITH AIR. ELIMINATION OF SOURCES OF IGNITION IS ESSENTIAL.

IMPORTANT! (Non Flammable) Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention and protection information during the use of welding and allied procedures.

SECTION V REACTIVITY DATA

Stability: Unstable N/A Conditions to avoid N/A
Stable N/A
Incompatibility (Materials to avoid): STRONG OXIDIZING AGENTS, ACID.
Hazardous Decomposition or Byproducts: See below
Hazardous May occur N/A Conditions to avoid N/A
Polymerization Will not occur N/A

HAZARDOUS DECOMPOSITION PRODUCTS

The materials are normally stable and decompose only in extreme cases such as fire. Oxides of nitrogen and carbon are the expected products of combustion in the presence of large amount of air. The products of poorly ventilated combustion are an uncharacterized mixture of organic compounds. This mixture will be as hazardous as the normal fire gases associated with poorly ventilated combustion.

Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in SECTION II, plus those from the base metal and coating, etc., as noted above.

One recommended way to determine the composition and quantity of fumes and gases to which works are exposed is to take an air sample from inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1-welder's 78, available from the American Welding Society, 2502 N.W. 7th Street, Miami, FL 33125.

SECTION VI HEALTH HAZARD DATA

Route(s) of entry: Inhalation? ** Skin? UNLIKELY Ingestion? UNLIKELY
Health Hazards (Acute and Chronic) See Sec VI Threshold Limit Value See below
NOTE: THE FOLLOWING LIST IS IN THE ORDER SHOWN IN SECTION II.

NUISANCE DUST - NUISANCE DUSTS ARE NOT EXPECTED TO CAUSE SIGNIFICANT ORGANIC DISEASE OR TOXIC EFFECTS WHEN EXPOSURES ARE CONTROLLED TO THE LIMITS STATED BELOW. THE ACGIH SUGGESTS THAT EXCESSIVE CONCENTRATIONS OF NUISANCE PARTICULATES IN THE WORKPLACE "MAY SERIOUSLY REDUCE VISIBILITY, MAY CAUSE UNPLEASANT DEPOSITS IN THE EYES AND NASAL PASSAGES, OR CAUSE INJURY TO THE SKIN OR MUCOUS MEMBRANES BY CHEMICAL OR MECHANICAL ACTION PER SE OR BY THE RIGOROUS SKIN CLEANSING PROCEDURES NECESSARY FOR THEIR REMOVAL." WE SUGGEST PEL OR TLV EXPOSURE LIMITS OF 10mg/m3 OF TOTAL DUST AND 5mg/m3 RESPIRABLE DUST.

Carcinogenicity: N/A

Signs and Symptoms of Exposure: N/A

** Gases and fumes generated while welding may be dangerous to your health.

ACUTE: Short-term exposure may result in discomfort such as dryness or irritation in the nose or throat, irritation of eyes, dizziness or nausea.

CHRONIC: Long-term exposure can lead to siderosis (iron deposits in the lungs) and may effect pulmonary functions.

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Medical Conditions Generally Aggravated by Exposure: SEE BELOW
Emergency and First Aid Procedures: IF AN ADVERSE REACTION OCCURS AFTER EXPOSURE, PROMPTLY START THE RECOMMENDED PROCEDURES BELOW. SEEK MEDICAL ATTENTION IF FURTHER TREATMENT IS REQUIRED. INGESTION: IF A LARGE AMOUNT OF THIS MATERIAL IS SWALLOWED, GIVE SEVERAL GLASSES OF WATER. CONTACT MEDICAL PERSONNEL FOR FURTHER ASSISTANCE. IF UNCONSCIOUS OR CONVULSING, DO NOT GIVE ANYTHING BY MOUTH. EYE CONTACT: FLUSH EYES WITH PLENTY OF RUNNING WATER FOR AT LEAST 15 MINUTES. HOLD THE EYE LIDS APART DURING THE FLUSHING TO ENSURE THE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER. SEEK MEDICAL ATTENTION IF EYE IRRITATION OCCURS. SKIN CONTACT: FLUSH ALL AFFECTED AREAS WITH PLENTY OF WATER FOR SEVERAL MINUTES. REMOVE AND CLEAN ANY CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION IF SKIN IRRITATION OCCURS. INHALATION: IF BREATHING REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION OCCURS OR IF BREATHING BECOMES DIFFICULT.

THRESHOLD LIMIT VALUE

The ACGIH-1980 (or latest data) recommended general limit for welding fume HRC- (not otherwise classified) is 5 mg/m³. ACGIH-1979 preface states, "The TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations." See SECTIONS V and SECTION VI for specific fume constituents which may modify this TLV.

Short term over exposure to welding fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of nose, throat, or eyes (see SECTION VI and VIII).

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: USE VACUUM EQUIPMENT APPROVED FOR USE IN COLLECTING DUSTS IN HAZARDOUS LOCATIONS. IF SWEEPING, SWEEP CAREFULLY TO MINIMIZE DUSTING. UNCONTAMINATED MATERIAL MAY BE SCOOPED UP FOR USE. IF CONTAMINATED, MATERIAL SHOULD BE PLACED IN A RECEPTACLE FOR DISPOSAL.

Waste Disposal Method: MATERIAL SHOULD BE USED UP OR DISPOSE OF IN AN ENVIRONMENTALLY SAFE MANNER.

Precautions to be taken in handling and storing: AS WITH ALL POWDERS THERE IS A POTENTIAL DUST HAZARD. HANDLE IN SUCH A MANNER AS TO MINIMIZE CONCENTRATION OF DUST IN THE WORKPLACE ENVIRONMENT. PREVENT INHALATION AND SKIN CONTACT OF POWDER, DO NOT EAT FOOD AND DO NOT SMOKE. AFTER EXPOSURE TO POWDER, WASH THOROUGHLY BEFORE EATING OR SMOKE. AVOID INHALATION OF FUMES DURING CURE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE. KEEP POWDER AWAY FROM HEAT, SPARKS AND OPEN FLAME. STORE POWDER IN A DRY LOCATION AND AT ROOM TEMPERATURE, <30 DEGREES C.

SECTION VIII CONTROL MEASURES

Respiratory Protection (specify type): See below
Ventilation: Local Exhaust: REQUIRED IN SEMI-OPEN OR POORLY VENTILATED SPACES
Mechanical(general): SAME
Protective Gloves: See Below
Other Protective Clothing or Equipment: See below
Work/Hygienic Practices: See Below

Read and understand the manufacturer's instruction and the precautions on the product. See American National Standard, Z39.1 N.E. 7th Street, Room, FL 33125 and OSHA Publication 2204 (29CFR1910), U. S. Government Printing office, Washington, DC 20402 for more detail on many of the following.

VENTILATION

Sufficient local exhaust ventilation to stay below regulated exposure limits is required for dust and fume conditions. Ventilation equipment, baghouse and cyclone dust collection system, to be explosion proof and grounded. Currier ovens should be properly vented to prevent fumes from entering the workplace.

RESPIRATORY PROTECTION

Use NIOSH/MSHA approved respirator equipped with a P3P filter or an appropriate respiratory device for particulates and fumes.

EYE PROTECTION

Dust-proof goggles are recommended for use in areas containing particulate matter. Safety glasses are recommended for general industrial areas.

PROTECTIVE CLOTHING

Permeation resistant gloves are recommended for prolonged and/or repeated contact with powder. Wear appropriate, clean protective clothing such as, but not limited to, coveralls, smocks, aprons, shoes and/or hats to minimize contact with skin and street clothes.

ENVIRONMENTAL MONITORING

Personal air sampling or related procedures are recommended to assure the concentration of particulate matter in the workplace is below standards.

SARA TITLE III, SECTION 313 ANNUAL REPORTING

This product does not contain reportable amounts of chemical subject to annual SARA reporting.

CALIFORNIA PROPOSITION 65

Unless specifically identified in Section VI of this MSDS, no component has been added to, or used in the production of this product which has been determined by the State of California to cause cancer, birth defects or other reproductive harm. However, this product may contain certain naturally occurring substances containing trace impurities which may be on the California List or may contain synthesized chemicals which could contain trace amounts of such substances.

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Candidate Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mls	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
UTP Welding Technology							
UTPlast Super	SP-5	3	2	8	100%	sand	Spray-Jet
Polyamide 11							

Panel Numbers SS= 411-432 Alum= 433-454 Coupled= 455-468 CPVC= 469-486

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	411	2.8	22.6	27.9	22	27.8	22.2	27.9	25.1
SS	412	2.7	15.4	17.2	15.3	17	15.5	17.4	16.3
SS	413	3	16	15.8	15.8	17	16.1	16.9	16.3
SS	414	2.9	17.6	16.2	17.7	16.3	17.6	16.2	16.9
SS	415	2.5	23.7	23.8	23.8	23.5	24.2	23.6	23.8
SS	416		28.4	30.8	27.3	31	26.6	30.8	29.2
SS	417		24	23.7	24	23.8	24.1	23.7	23.9
SS	418		18.4	16.4	18.2	16.5	18.3	16.5	17.4
SS	419		22.2	20.8	21.7	21	22.3	21.2	21.5
SS	420		20.2	18.4	20.2	18.4	20.1	18.5	19.3
SS	421		28.4	25.6	28.4	25.7	28.5	25.3	27.0
SS	422		28	28.8	28	28.8	27.8	28.5	28.3
SS	423		22.1	21.8	21.2	21.6	22.2	21.8	21.8
SS	424		30.5	33.5	30.8	33.3	30.6	33.1	32.0
SS	425		23.1	19.6	22.5	20	22.1	19.6	21.2
SS	426		12.5	14.9	11.9	15	12.1	14.6	13.5
SS	427		20	22.4	20.1	22.6	20	23	21.4
SS	428		28.5	33.7	28.5	33.7	28.1	34.2	31.1
SS	429		29.6	27.5	29.7	27.9	29.4	28.2	28.7
SS	430		31.4	27.5	31.1	28.2	30.9	27.6	29.5
SS	431		34.1	27.2	33.1	27.5	33.3	27.3	30.4
SS	432		28.3	29.9	27.9	29.9	27.8	29.8	28.9
ALUM	433	4.3	28	33.5	28.1	34	28.1	33.3	30.8
ALUM	434		20.4	26.8	20.4	26.8	20.3	26.3	23.5
ALUM	435		26.4	32.1	26.4	32.4	27	32	29.4
ALUM	436		30	33.3	30.5	31.7	30.5	32.3	31.4
ALUM	437		30.3	37.1	30.2	37.1	29.8	37.1	33.6
ALUM	438	4.2	13.2	23.9	13	23.7	13.1	23.9	18.5
ALUM	439		17.8	28.8	17.8	28.1	17.6	28.3	23.1
ALUM	440		34.3	29.8	34.2	30.1	33.2	29.6	31.9
ALUM	441		24.3	31	23.6	32.6	24.1	31.9	27.9
ALUM	442		39.6	30.9	40.6	30.4	39.8	30.5	35.3
ALUM	443		29.9	19.9	29.9	19	29.9	19.8	24.7
ALUM	444		33.5	39.3	34.9	39.1	36	40	37.1
ALUM	445		24.8	31.4	25.4	31.3	25.1	31.4	28.2
ALUM	446		19.5	24.4	20.2	24.4	20	24.2	22.1
ALUM	447		37.5	41	37.6	41.1	37.6	40.7	39.3
ALUM	448	4.4	28.5	24.4	28.9	24.5	29.5	24.1	26.7
ALUM	449		29.1	39.1	28.6	39.5	28.9	40.4	34.3
ALUM	450		28.3	33	28.5	33.3	28.2	32.8	4.8
ALUM	451		27.1	22.5	26.3	22.5	26.1	21.2	24.3
ALUM	452		27.1	28.9	27.1	28.8	27	29.2	28.0
ALUM	453	4.3	17.3	24.6	17.6	24.6	17	24.5	20.9
ALUM	454		21	25	20.8	24.5	21.5	25	23.0
SS CPL	455		22.8	23.4	22.6	24.4	23.7	24.5	23.6

AL CPL	455		29.2	26.2	27.7	26.7	28.7	27.3	27.6
SS CPL	456	2.6	33.6	29.6	34.9	29	34.7	30.4	32.0
AL CPL	456	4.5	18.7	21.8	18.8	21.5	19.1	24.2	20.7
SS CPL	457		24.9	23.9	25.3	23.8	24.3	22.6	24.1
AL CPL	457		22	28.8	21.5	28.3	22.6	29	25.4
SS CPL	458		31.3	24.5	31.8	24	31.6	23.3	27.8
AL CPL	458		24.4	28.1	26.1	27.4	25.5	27.6	26.5
SS CPL	459		20.1	20.8	20.1	20.4	19.8	20.9	20.4
AL CPL	459		18.7	26.6	19.7	26.6	19.3	26	22.8
SS CPL	460		22.5	23	23.8	23.7	23	23.8	23.3
AL CPL	460		21.6	27.8	21.9	26.3	21.7	28	24.6
SS CPL	461		31.2	26.3	31.3	26.3	31.5	26.2	28.8
AL CPL	461		20.1	25.3	19.2	25.3	19.7	24.1	22.3
SS CPL	462	2.8	19.3	24.9	19	25	19.2	25.2	22.1
AL CPL	462	4.1	16.9	24.1	18.7	24.5	18.1	26.4	21.5
SS CPL	463		20.4	24.2	21.2	24.2	21	24	22.5
AL CPL	463		21.8	26.4	20.7	26.1	21.7	25.1	23.6
SS CPL	464		30.5	31.3	31.3	31	30.1	30.9	30.9
AL CPL	464		24.2	22.1	23.8	21.9	23.7	21.7	22.9
SS CPL	465		21.7	21.2	21.9	20.9	22.8	20.9	21.6
AL CPL	465		20.8	25.7	22.2	25.8	23.3	26.2	24.0
SS CPL	466		24.6	20.7	24	20	24.4	20.7	22.4
AL CPL	466		18.2	21.5	18.5	21.6	17.5	21.1	19.7
SS CPL	467	2.4	20.4	23.3	22.2	22.9	21.6	23	22.2
AL CPL	467	4.1	22.1	20.1	21.4	20.9	21.2	20.5	21.0
SS CPL	468		22.7	22.4	23.5	21.9	23.4	22	22.7
AL CPL	468		23.3	20.3	24.1	21.1	23.9	21	22.3
CPVC	469		146	158	18	30	24	12.0	12.0
CPVC	470		176	173	48	45	46.5	23.3	23.3
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CPVC	476		168	173	40	45	42.5	21.3	21.3
CPVC	477		161	167	33	39	36	18.0	18.0
CPVC	478		172	173	44	45	44.5	22.3	22.3
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CPVC	483		169	168	41	40	40.5	20.3	20.3
CPVC	484		173	175	45	47	46	23.0	23.0
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Adh	487		15.6	15.6	15.5	17.5	15.6	16	16.0
Adh	488		18.3	18.5	18.3	19	18.1	20.9	18.9
Tabor	489		21	22.9	21.6	21.7	21.5	21.7	21.7
Tabor	490		15.2	13.3	15.8	14.7	15.8	14.8	14.9
Impact	491		13.4	15.7	12.7	15.8	13.5	15.6	14.5
Impact	492		15.3	13.4	14.9	14	15.2	13.8	14.4

average 24.5 26.0 24.5 25.9 24.5 26.0 23.7

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)	CLIENT: NASA
	JOB NO: H6341
Summary of Work Performed: Surface Prep / UT Plant - Super SYSTEM 6	

PRE-SURFACE PREPARATION

		S	U
Condition of Edges, Weld Spatter, Etc.		✓	
Grease/Oil Removal (Record Solvent)	NO SOLVENT USED	✓	
Clean Dry Abrasive	0	✓	
Recycled Abrasive Test	SAMPLE TAKEN		
Nozzle Air Pressure (Record)	110		
Compressed Air Cleanliness (Record)	00	✓	

SURFACE PREPARATION

	DB:	WB:	RH:	DP:	ST:
Ambient Conditions (Record)					
Degree of Cleanliness (Record)	50-10				
Profile (Record)	1.5 RECORD				
Type and Size Abrasive (Record)	BLANK BRUSH / 1" x 1"				
Dust and Abrasive Removal	OK			✓	
Magnetic Base Reading (Record)				✓	

MIXING

Mfg/Product Name (Record)	UTP UT-100 - SUPER 11		
Batch Numbers (Record)	1204		
Material Temperature/Potlife (Record)	N/A		
Correct Thinner/Amount (Record)	N/A		
Time of Mix (Record)	N/A		
Mix Ratio (Record)	N/A		
Induction Period (Record)	N/A		

APPLICATION

Ambient Conditions (Record)	DB: 78 WB: 67 RH: 54 DP:	ST:
Applicator's Name (Record)	DAVID P. JONES	
Surface Prep. to Appl. (Record Time)	2:30 PM	
Compressed Air Cleanliness	0	✓
Time Application Began (Record)	1:30 4/15/84	
Surrounding Air Cleanliness	0	✓
Recoat Times Observed (Record Actual)	N/A	
Intercoat Cleanliness	N/A	
Proper Pot Agitation	N/A	
Application Equipment (Record)	UTP UNIVERSAL JET	
Time Application Complete (Record)		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector:	
Date:	4/15/84
Report No.	
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Panel/Tag #	Front	Front	Back
SS 411 2.8	SS PRESS-O-FILM™ No. <u>411 F</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>411 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>411 B</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 412 2.7	SS PRESS-O-FILM™ No. <u>412 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>412 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>412 B</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 413 3.0	SS PRESS-O-FILM™ No. <u>413 F</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>413 F</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>413 B</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 414 2.9	SS PRESS-O-FILM™ No. <u>414 F</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>414 F</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>414 B</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 415 2.5	SS PRESS-O-FILM™ No. <u>415 F</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>415 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>415 B</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
433 416 A1	A PRESS-O-FILM™ No. <u>416 F</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>416 F</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>416 B</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
438 417 A1	A PRESS-O-FILM™ No. <u>417 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>417 F</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>417 B</u> Mils. <u>4.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
443 418 A1	A PRESS-O-FILM™ No. <u>418 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>418 F</u> Mils. <u>4.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>418 B</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
448 419 A1	A PRESS-O-FILM™ No. <u>419 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>419 F</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>419 B</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

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Panel/Tag #	Front	Front	Back
453 420 A1 483 4.3	A PRESS-O-FILM™ No. <u>420 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>420 F</u> Mils. <u>3.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>420 B</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 421 A1 484 4.5	A PRESS-O-FILM™ No. <u>421 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>421 F</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>421 B</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 422 SS 485 2.4	SS PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>422 B</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 423 A1 486 4.1	A PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>3.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>422 B</u> Mils. <u>4.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 424 SS 487 2.8	SS PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>422 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>422 B</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 425 A1 488 4.1	A PRESS-O-FILM™ No. <u>423 F</u> Mils. <u>4.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>423 F</u> Mils. <u>4.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>423 B</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coupled 426 SS 489 2.4	SS PRESS-O-FILM™ No. <u>423 F</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>423 F</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>423 B</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
CMVC			

NASA 6 UTPlast-(Polyamide)

Candidate Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
UTP Welding Technology UTPlast Super Polyamide 11	SP-5	3	2	8	100%		Spray-Jet

Panel Numbers SS= 411-432 Alum= 433-454 Coupled= 455-468 CPVC= 469-486

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	411	✓	22.4	27.9	22	27.8	22.2	27.9	#DIV/0!
SS	412	✓	15.4	17.2	15.3	17.0	15.5	17.4	#DIV/0!
SS	413	✓	16	15.8	15.8	17	16.1	16.9	#DIV/0!
SS	414	✓	17.4	16.2	17.7	16.3	17.6	16.2	#DIV/0!
SS	415	✓	23.7	23.8	23.8	23.5	24.2	23.6	#DIV/0!
SS	416		28.4	30.8	27.3	31	26.6	30.8	#DIV/0!
SS	417		24	23.7	24	23.8	24.1	23.7	#DIV/0!
SS	418		18.4	16.4	18.2	16.5	18.3	16.5	#DIV/0!
SS	419		22.2	20.8	21.7	21	22.3	21.2	#DIV/0!
SS	420		20.2	18.4	20.2	18.4	20.1	18.5	#DIV/0!
SS	421		28.4	25.6	28.4	25.7	28.5	25.3	#DIV/0!
SS	422		28	28.8	28	28.8	27.8	28.5	#DIV/0!
SS	423		22.1	21.8	21.2	21.6	22.2	21.8	#DIV/0!
SS	424		30.5	33.5	30.8	33.3	30.6	33.1	#DIV/0!
SS	425		23.1	19.6	22.5	20	22.1	19.6	#DIV/0!
SS	426		12.5	14.9	11.9	15	12.1	14.6	#DIV/0!
SS	427		20	22.4	20.1	22.6	20	23	#DIV/0!
SS	428		28.5	33.7	28.5	33.7	28.1	34.2	#DIV/0!
SS	429		29.6	27.5	29.7	27.9	29.4	28.2	#DIV/0!
SS	430		31.4	27.5	31.1	28.2	30.9	27.6	#DIV/0!
SS	431		34.1	27.2	33.1	27.5	33.3	27.3	#DIV/0!
SS	432		28.3	29.9	27.9	29.9	27.8	29.8	#DIV/0!
ALUM	433		28	33.5	28.1	34	28.1	33.3	#DIV/0!
ALUM	434		20.4	26.8	20.4	26.8	20.3	26.3	#DIV/0!
ALUM	435		26.4	32.1	26.4	32.4	22.7	32	#DIV/0!
ALUM	436		30	33.3	30.5	31.7	30.5	32.3	#DIV/0!
ALUM	437		30.3	37.1	30.2	37.1	29.8	37.1	#DIV/0!
ALUM	438		13.2	23.9	13.0	23.7	13.1	23.9	#DIV/0!
ALUM	439		17.8	28.8	17.8	28.1	17.6	28.3	#DIV/0!
ALUM	440		34.3	29.8	34.2	30.1	33.2	29.6	#DIV/0!
ALUM	441		24.3	31	23.6	32.6	24.1	31.9	#DIV/0!

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	442		39.6	30.9	40.6	30.4	39.8	30.5	#DIV/0!
ALUM	443		29.9	19.9	29.9	19.0	29.9	19.8	#DIV/0!
ALUM	444		33.5	39.3	34.9	39.1	36.0	40.0	#DIV/0!
ALUM	445		24.8	31.4	25.4	31.3	25.1	31.4	#DIV/0!
ALUM	446		19.5	24.4	20.2	24.4	20	24.2	#DIV/0!
ALUM	447		37.5	41	37.6	41.1	37.6	40.7	#DIV/0!
ALUM	448		28.5	24.4	28.9	24.5	29.5	24.1	#DIV/0!
ALUM	449		29.1	39.1	28.6	39.5	28.9	40.4	#DIV/0!
ALUM	450		28.3	33	28.5	33.3	28.2	32.8	4.8
ALUM	451		27.1	22.5	26.3	22.5	26.1	21.2	#DIV/0!
ALUM	452		27.1	28.9	27.1	28.8	27	29.2	#DIV/0!
ALUM	453		17.3	24.6	17.6	24.6	17.0	24.5	#DIV/0!
ALUM	454		21	25	20.6	24.5	21.5	25	#DIV/0!
SS CPL	455		22.8	23.4	22.8	24.4	23.7	24.5	#DIV/0!
AL CPL	455		29.2	26.2	27.7	26.7	28.7	27.3	#DIV/0!
SS CPL	456		33.6	29.6	34.9	29	34.7	30.4	#DIV/0!
AL CPL	456		18.7	21.8	18.8	21.5	19.1	24.2	#DIV/0!
SS CPL	457		24.9	23.9	25.3	23.8	24.3	22.6	#DIV/0!
AL CPL	457		22	28.8	21.5	28.3	22.6	29	#DIV/0!
SS CPL	458		31.3	24.5	31.8	24	31.6	23.3	#DIV/0!
AL CPL	458		24.4	28.1	26.1	27.4	25.5	27.6	#DIV/0!
SS CPL	459		20.1	20.8	20.1	20.4	19.8	20.9	#DIV/0!
AL CPL	459		18.7	26.6	19.7	26.6	19.3	26.0	#DIV/0!
SS CPL	460		22.5	23	23.8	23.7	23	23.8	#DIV/0!
AL CPL	460		21.6	27.8	21.9	26.3	21.7	28	#DIV/0!
SS CPL	461		31.2	26.3	31.3	26.3	31.5	26.2	#DIV/0!
AL CPL	461		20.1	25.3	19.2	25.3	19.7	24.1	#DIV/0!
SS CPL	462		19.3	24.9	19	25	19.2	25.2	#DIV/0!
AL CPL	462		16.9	24.1	18.7	24.5	18.1	26.4	#DIV/0!
SS CPL	463		20.4	24.2	21.2	24.2	21	24	#DIV/0!
AL CPL	463		21.8	26.4	20.7	26.1	21.7	25.1	#DIV/0!
SS CPL	464		30.5	31.3	31.3	31	30.1	30.9	#DIV/0!
AL CPL	464		24.2	23.1	23.8	21.9	23.7	21.7	#DIV/0!
SS CPL	465		21.7	21.2	21.9	20.9	20.8	20.9	#DIV/0!
AL CPL	465		20.8	25.7	22.2	25.8	23.3	26.2	#DIV/0!

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 466		24.6	20.7	24	20	24.4	20.7	#DIV/0!
AL CPL 466		18.2	21.5	18.5	21.6	17.5	21.1	#DIV/0!
SS CPL 467		20.4	23.3	22.2	22.9	21.6	23	#DIV/0!
AL CPL 467		22.1	20.1	21.4	20.9	21.2	20.5	#DIV/0!
SS CPL 468		22.7	22.4	23.5	21.9	23.4	22	#DIV/0!
AL CPL 468		23.3	20.3	24.1	21.1	23.9	21	#DIV/0!
CPVC 469		146	158					#DIV/0!
CPVC 470		176	173					#DIV/0!
CPVC 471		189	201					#DIV/0!
CPVC 472		166	168					#DIV/0!
CPVC 473		167	168					#DIV/0!
CPVC 474		176	171					#DIV/0!
CPVC 475		178	179					#DIV/0!
CPVC 476		168	173					#DIV/0!
CPVC 477		161	167					#DIV/0!
CPVC 478		172	173					#DIV/0!
CPVC 479		177	173					#DIV/0!
CPVC 480		165	168					#DIV/0!
CPVC 481		173	174					#DIV/0!
CPVC 482		172	170					#DIV/0!
CPVC 483		169	168					#DIV/0!
CPVC 484		173	175					#DIV/0!
CPVC 485		173	171					#DIV/0!
CPVC 486		163	162					#DIV/0!
Adh 487		15.6	15.6	15.5	17.5	15.6	16.0	#DIV/0!
Adh 488		18.3	18.5	18.3	19.	18.1	20.9	#DIV/0!
Tabor 489		21	22.9	21.6	21.7	21.5	21.7	#DIV/0!
Tabor 490		15.2	13.3	15.8	14.7	15.8	14.8	#DIV/0!
Impact 491		13.4	15.7	12.7	15.8	13.5	15.6	#DIV/0!
Impact 492		15.3	13.4	14.9	14.0	15.2	13.8	#DIV/0!

AL Extr

23.3 23.6 22.9 24.2 22.9 23.6

System #7 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mls	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Aluminum Metalized Thermal System							
UTP Welding Technology							
UTPlast-Extra	SP-5	3	2	8	100%		Spray-Jet
ethylene/vinyl alcohol							

Panel Numbers SS=493-514 Alum= 515-536 Coupled=537-550 CPVC=551-568

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	493	2.6	13.9	14.2	12.9	14.3	13.2	14.1	13.8
SS	494	2.8	14.1	22.6	15.1	22.3	14.8	22.4	18.6
SS	495	2.9	24.7	24.5	23.7	24.2	24.5	24.5	24.4
SS	496	2.8	24.3	22.5	19.6	22.6	19.8	23.4	22.0
SS	497	2.8	22.3	21.6	22.1	21.4	21.9	21	21.7
SS	498		17.2	23.1	17.4	23.2	17.3	23.2	20.2
SS	499		12	14.7	12.2	14.7	12.1	15	13.5
SS	500		16.9	21.7	16.6	21.7	16.4	21.2	19.1
SS	501		23.6	25.2	23.4	25.1	23.5	25.1	24.3
SS	502		16.4	17.3	16.6	16.8	16.3	17	16.7
SS	503		12.3	15	12.6	15	12.7	14.8	13.7
SS	504		21.9	25.3	21.9	25	22.4	25	23.6
SS	505		13.3	15.8	13.2	15.7	12.4	15.9	14.4
SS	506		20.2	19.7	20.2	19.2	20.2	19.1	19.8
SS	507		13.5	13.4	13.5	12.6	13	12.4	13.1
SS	508		12.9	13.3	12.9	14	12.6	13.8	13.3
SS	509		22.5	28	22.5	28	214.6	28	57.3
SS	510		19.2	23.6	19.7	23.6	19.3	23.6	21.5
SS	511		18.6	21	18.8	20.9	18.7	21	19.8
SS	512		17.4	19.8	17.6	19.7	17.3	19.6	18.6
SS	513		15.9	20.6	15.8	21.5	15.7	21.5	18.5
SS	514		15.2	20.8	15.7	20.9	15.1	20.9	18.1
ALUM	515		18.6	20	19.2	20.9	19.2	20.5	19.7
ALUM	516	4.7	25.3	30.2	25.4	30	25.4	30.7	27.8
ALUM	517		30.1	35.4	29.9	35.4	30.3	35	32.7
ALUM	518		26.6	28.9	26.4	28.9	26.8	29	27.8
ALUM	519		19.7	22.8	20.4	22.6	20.3	22.7	21.4
ALUM	520		23.9	26.5	23.9	26.5	23.9	26.5	25.2
ALUM	521	4.8	21.8	27	20.9	27	21.7	27	24.2
ALUM	522		24.3	26.3	24	26.1	24.5	26.3	25.3
ALUM	523		24.9	28.3	25	28.5	25.5	28.4	26.8
ALUM	524		28.5	29.2	28.7	29.2	28.8	29.3	29.0
ALUM	525		25.2	30.7	25.3	30.9	25.3	30.6	28.0
ALUM	526	4	27.2	25	21.8	25.2	21.9	25.1	24.4
ALUM	527		28.8	39	28.8	38.7	28.9	39	33.9
ALUM	528		24.2	28.8	24.3	28.9	24.3	29	26.6
ALUM	529		17.4	17.8	17.6	17.6	17.5	19.1	17.8
ALUM	530		24.2	27.3	24.3	27.4	24.4	27.5	25.9
ALUM	531	4.6	31.4	32.2	31.2	32	31.6	32.1	31.8
ALUM	532		19.1	22.9	19.2	22.6	19.6	22.7	4.8
ALUM	533		19.7	36.5	19.4	36.5	19.6	36.6	28.1
ALUM	534		36.5	26.9	36	26.9	36.3	27.5	31.7
ALUM	535		19.3	22.1	19	21.5	19	22	20.5
ALUM	536	4.8	34.9	39.6	35.8	39.4	35.6	39.6	37.5

AL CPL	537		20.3	19	18.9	18.3	19.1	16.4	18.7
SS CPL	538		57.2	33.2	56.7	33.4	54.1	37.3	45.3
AL CPL	538		22.7	23.6	25.3	23.7	24.3	24.3	24.0
SS CPL	539	2.7	3.9	6.1	4.3	5.6	4.4	5.9	5.0
AL CPL	539	4.7	19	24.6	24	23.9	24.9	24	23.4
SS CPL	540		14.9	17.9	15.8	17.3	16	17.1	16.5
AL CPL	540		22.4	25.8	22.7	27	22.7	27.1	24.6
SS CPL	541		17.7	15.2	19.5	15.2	18.8	16.8	17.2
AL CPL	541		33.5	35.9	34	38.4	29.2	31.5	33.8
SS CPL	542		31.5	27.5	31.2	24.3	29.4	26.8	28.5
AL CPL	542		33.9	28.4	29	29.4	28.7	26.9	29.4
SS CPL	543		16	16.6	16.8	16.7	16.4	16.5	16.5
AL CPL	543		17.7	15.1	18.4	14.8	18	14.3	16.4
SS CPL	544	2.9	32.7	33.3	32.3	34.1	31.3	33.4	32.9
AL CPL	544	4.7	22.8	26.5	23.8	26.5	23.4	25.2	24.7
SS CPL	545		19.2	16.6	27.4	17.9	25.7	17.6	20.7
AL CPL	545		13.7	12.4	15	12.8	13.9	12.4	13.4
SS CPL	546		25.7	22.2	27.3	23.2	27.2	20.7	24.4
AL CPL	546		23.3	33.8	23.8	33.2	21.6	33.1	28.1
SS CPL	547		24.1	24.5	24.9	24.4	24.7	24.3	24.5
AL CPL	547		19	20	18.7	19	17.7	19.9	19.1
SS CPL	548		18.2	27.4	18.4	23.3	18.3	25.1	21.8
AL CPL	548		28.8	27.6	28.1	28.5	30.1	27.9	28.5
SS CPL	549	2.8	26.9	27.8	31.5	26	28.1	23.8	27.4
AL CPL	549	4.6	9.4	9.1	11	9.1	9.9	9.1	9.6
SS CPL	550		21.4	13.5	19.7	14.8	19.2	13.1	17.0
AL CPL	550		24.7	17.4	25.2	18.4	24.6	17.4	21.3
CPVC	551		143	148	15	20	17.5		17.5
CPVC	552		154	153	26	25	25.5		25.5
CPVC	553		158	157	30	29	29.5		29.5
CPVC	554		168	165	40	37	38.5		38.5
CPVC	555		150	154	22	26	24		24.0
CPVC	556		151	157	23	29	26		26.0
CPVC	557		153	155	25	27	26		26.0
CPVC	558		150	151	22	23	22.5		22.5
CPVC	559		144	143	16	15	15.5		15.5
CPVC	560		145	149	17	21	19		19.0
CPVC	561		146	142	18	14	16		16.0
CPVC	562		155	157	27	29	28		28.0
CPVC	563		143	146	15	18	16.5		16.5
CPVC	564		146	145	18	17	17.5		17.5
CPVC	565		149	143	21	15	18		18.0
CPVC	566		150	146	22	18	20		20.0
CPVC	567		144	140	16	12	14		14.0
CPVC	568		146	151	18	23	20.5		20.5
Adh	569		35	49.1	33.7	46.4	35.6	49.6	41.6
Adh	570		19.2	26.2	21.3	25	20.9	26	23.1
Tabor	571		35.2	34.1	35.1	34.9	37.3	34.7	35.2
Tabor	572		53.4	45.3	51.6	44.7	52.4	45.1	47.8
Impact	573		32.5	42.2	35.5	43.9	38.1	43.5	39.3
Impact	574		26.3	33.5	26.7	33.3	27.2	33.5	30.1

average 22.2 23.9 22.4 23.8 24.7 23.6 23.8



UTPlast Extra

Flame spraying: UNI-SPRAY-JET
 MINI-SPRAY-JET
 UTPlast F-311

Applications fields

UTPlast Extra is the ideal long term protection for all metals and materials which require resistance against one or several of the following possibilities of attack:

- corrosion (by seawater, corrosive atmosphere, hydrocarbons, solvents)
- abrasion (by particle flow)
- wear (by friction)

Applications for UTPlast Extra are found in:

- chemical industry
- pharmaceutical industry
- water- and sewage treatment
- marine industry

Complies with FDA Regulation 177.1310 (a.1.b.) for food contact.

Properties

UTPlast Extra is an easily applicable powder giving a smooth and homogeneous deposit. It can be applied on all materials supporting a temperature as high as its melting point. Information on resistance against various chemicals and media is available on demand.

Technical Data

Chemical composition	: Ethylene acrylic acid copolymer
Particle shape	: Irregular
Grain size range	: 200 μm + 80 μm
Typical density (g/cm^3) approx.	: 0.49
Abrasion resistance (Taber weight loss CS17 - Wheel) mg/100 cycle	: 7.5 mg/100 cycle
Dielectric strength Short time 1/8 in. volts/mil.	: 400 - 500
Recommended coating thickness	: 0.5 - 1.0 mm (0.02 - 0.04")
Melting point	: 99.5°C (211°F)
Recommended maximum service temperature	: 74° C (165°F)
Powder consumption per 0.5 mm (0.02") coat thickness	: 0.6 kg/m^2 (0.122 lb/ft^2)

Surface Preparation

Sandblasting (metallic clean) with electro corundum, aluminum oxide (0.25 - 0.5 mm) (0.01 - 0.02") or grinding metallic clean, if possible, with inorganic bound disc, free of oil, grease or other liquids.

UTP Welding Technology

P.O. Box 721678 • Houston, Texas 77272-1678 • (713) 499-1212 • (800) 527-0791 • Fax: (713) 499-4347

UTPlast Extra

Spraying Parameters

Oxygen pressure	:	2.7 bar (40 PSI)
Acetylene pressure	:	0.5 bar (7 PSI)
Propane pressure	:	0.4 bar (6 PSI)
Compressed air pressure	:	40 - 44 PSI
Flame adjustment knob "A"	:	Pos. "N" = Neutral
Powder module head	:	standard (silver) (+ refillable powder container, if available)
Powder measuring slide valve	:	front position
Spray nozzle	:	USJ-L/T*
Ring nozzle	:	USJ-B/R*
Powder pressure injector	:	N (0.45)
Spray distance	:	250 - 300 mm (9.8 - 11.8")
Preheating temperature	:	approx. 80°C (176°F)

* = special accessories

Important! Keep pistol and flame moving. Never concentrate the flame on one spot to avoid overheating of the plastic layer.

Move pistol alternatively horizontally and vertically to obtain complete covering of the surface. If necessary, the surface can be smoothed by careful "brushing" with flame and air (without depositing powder).

Without compressed air, it is impossible to spray UTPlast.

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SECTION V REACTIVITY DATA

Stability: Unstable N/A Conditions to avoid N/A
 Stable N/A
 Compatibility (Materials to avoid): STRONG OXIDIZING AGENTS, ACIDS
 Hazardous Decomposition or Byproducts: See below
 Hazardous May occur N/A Conditions to avoid N/A
 Polymerization Will not occur N/A

HAZARDOUS DECOMPOSITION PRODUCTS

The materials are normally stable and decompose only in extreme cases such as fire. Oxides of nitrogen and carbon are the expected products of combustion in the presence of large amount of air. The products of poorly ventilated combustion are an uncharacterized mixture of organic compounds. This mixture will be as hazardous as the normal fire gases associated with poorly ventilated combustion.

Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in SECTION II, plus those from the base metal and coating, etc., as noted above.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/ANSI Z49.1-78, available from the American Welding Society, 2501 N.W. 7th Street, Miami, FL 33125.

SECTION VI HEALTH HAZARD DATA

Route(s) of entry: Inhalation? ** Skin? UNLIKELY Ingestion? UNLIKELY
 Health Hazards (Acute and Chronic) See Sec VI Threshold Limit Value See below
 NOTE: THE FOLLOWING LIST IS IN THE ORDER SHOWN IN SECTION II.

NUISANCE DUST - NUISANCE DUSTS ARE NOT EXPECTED TO CAUSE SIGNIFICANT ORGANIC DISEASE OR TOXIC EFFECTS WHEN EXPOSURES ARE CONTROLLED TO THE LIMITS STATED BELOW. THE ACGIH SUGGESTS THAT EXCESSIVE CONCENTRATIONS OF NUISANCE PARTICULATES IN THE WORKPLACE "MAY SERIOUSLY REDUCE VISIBILITY, MAY CAUSE UNPLEASANT DEPOSITS IN THE EYES AND NASAL PASSAGES, OR CAUSE INJURY TO THE SKIN OR MUCOUS MEMBRANES BY CHEMICAL OR MECHANICAL ACTION PER SE OR BY THE RIGOROUS SKIN CLEANSING PROCEDURES NECESSARY FOR THEIR REMOVAL." WE SUGGEST PEL OR TLV EXPOSURE LIMITS OF 10mg/m3 OF TOTAL DUST AND 5mg/m3 RESPIRABLE DUST.

Carcinogenicity: N/A

Signs and Symptoms of Exposure: N/A

** Gases and fumes generated while welding may be dangerous to your health.
 ACUTE: Short-term exposure may result in discomfort such as dryness or irritation in the nose or throat, irritation of eyes, dizziness or nausea.
 CHRONIC: Long-term exposure can lead to siderosis (iron deposits in the lungs) and may effect pulmonary functions.

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The ACGIH-1980 (or latest data) recommended general limit for welding fume HOC- (not otherwise classified) is 5 mg/m3. ACGIH-1979 preface states, "The TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations. See SECTIONS V and SECTION VI for specific fume constituents which may modify this TLV."

Short term over exposure to welding fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of nose, throat, or eyes (see SECTION VI and VIII).

Steps to be taken in case material is released or spilled: USE VACUUM EQUIPMENT APPROVED FOR USE IN COLLECTING DUSTS IN HAZARDOUS LOCATIONS. IF SWEEPING, SWEEP CAREFULLY TO MINIMIZE DUSTING. UNCONTAMINATED MATERIAL MAY BE SCOOPED UP FOR USE. IF CONTAMINATED, MATERIAL SHOULD BE PLACED IN A RECEPTACLE FOR DISPOSAL.

Waste Disposal Method: MATERIAL SHOULD BE USED UP OR DISPOSE OF IN AN ENVIRONMENTALLY SAFE MANNER.

Precautions to be taken in handling and storage: AS WITH ALL POWDERS THERE IS A POTENTIAL DUST HAZARD. HANDLE IN SUCH A MANNER AS TO MINIMIZE CONCENTRATION OF DUST IN THE WORKPLACE ENVIRONMENT. PREVENT INHALATION AND SKIN CONTACT OF POWDER. DO NOT EAT FOOD AND DO NOT SMOKE. AFTER EXPOSURE TO POWDER, WASH THOROUGHLY BEFORE EATING OR SMOKING. AVOID INHALATION OF FUMES DURING CURE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE. KEEP POWDER AWAY FROM HEAT, SPARKS AND OPEN FLAME. STORE POWDER IN A DRY LOCATION AND AT ROOM TEMPERATURE, <30 DEGREES C.

SECTION VIII CONTROL MEASURES
Respiratory Protection (specify type): See below
Ventilation: Local Exhaust: REQUIRED IN SEMI-OPEN OR POORLY VENTILATED SPACES
Mechanical(general): SAME
Protective Gloves: See Below
Other Protective Clothing or Equipment: See below
Work/Hygiene Practices: See Below

SPECIAL PROTECTION INFORMATION AND PRECAUTIONS

Read and understand the manufacturer's instruction and the precautionary label on the product. See American National Standard, Z391 M-91, 7th Street, Broomfield, FL 33125 and OSHA Publication 2206 (29CFR1910), U. S. Government Printing Office, Washington, DC 20402 for more detail on many of the following.

VENTILATION

Sufficient local exhaust ventilation to stay below regulated exposure limits is required for dust and fume conditions. Ventilation equipment, baghouse and cyclone dust collection system, to be explosion proof and grounded. During ovens should be properly vented to prevent fumes from entering the workplace.

RESPIRATORY PROTECTION

Use NIOSH/MSHA approved respirator equipped with a HEPA filter or an appropriate respiratory device for particulates and fumes.

EYE PROTECTION

Dust-proof goggles are recommended for use in areas containing particulate matter. Safety glasses are recommended for general industrial areas.

PROTECTIVE CLOTHING

Permeation resistant gloves are recommended for prolonged and/or repeated contact with powder. Wear appropriate, clean protective clothing such as, but not limited to, coveralls, smocks, aprons, shoes and/or hats to minimize contact with skin and street clothes.

ENVIRONMENTAL MONITORING

Personal Air sampling or related procedures are recommended to assure the concentration of particulate matter in the workplace is below standards.

SARA TITLE III, SECTION 313 ANNUAL REPORTING

This product does not contain reportable amounts of chemical subject to annual SARA reporting.

CALIFORNIA PROPOSITION 65

Unless specifically identified in Section VI of this MSDS, no component has been added to, or used in the production of this product which has been determined by the State of California to cause cancer, birth defects or other reproductive harm. However, this product may contain certain naturally occurring substances containing trace impurities which may be on the California list or may contain synthesized chemicals which could contain trace amounts of such substances.

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UTP WELDING MATERIALS, INC.
MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 10.1200; Standard must be consulted for specific requirements.

SECTION I IDENTITY

Product 91-7035 UTPLAST EXTRA 20 GREY Add or other spec
Manufacturer/Distributor Name UTP WELDING MATERIALS, INC.
Address 10401 GREENROUGH STAFFORD, TEXAS 77477
Telephone Number (213) 492-1212 1-800-527-0791
Date Prepared REVISED 02/93

SECTION II HAZARDOUS INGREDIENTS/COMPONENTS

Chemical Identity	CAS	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)	PERCENT
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CHEMICAL FAMILY: ETHYLENE/ACRYLIC ACID

POWDER COATINGS SHOULD BE TREATED AS A NUISANCE DUST
(PARTICULATE NOT OTHERWISE REGULATED OR CLASSIFIED).
SEE SECTION VI FOR MORE INFORMATION.

IMPORTANT! This section covers the material from which this product is manufactured. The fumes and gases produced during welding with this product are covered by SECTION VI. The term "hazardous" in "Hazardous Materials" should be interpreted as a term required and defined in OSHA 2265 and does not necessarily imply the existence of any hazard.

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	N/A	Specific Gravity(H2O=1):	0.619
Vapor Pressure(mmHg.):	N/A	Melting Point: DEGREES C:	90-120
Vapor Density (AIR=1):	N/A	Evaporation Rate:	N/A
Solubility in Water:	NEGLIGIBLE		
Appearance and Odor:	FINELY DIVIDED POWDER - SLIGHT, IF ANY, ODOR		
Volatiles-by Weight:	CH (EPA REFERENCE METHOD 24 (ACFM-D) 2369-963)		
	MEASURED VOLATILES ARE ABSORBED WATER.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point(Method Used):	N/A	Flammable Limits	N/A
LEL:	30 - 70 gms/m3	UEL-N/A	
Extinguishing Media:	FOAM, CARBON DIOXIDE, WATER, DRY CHEMICAL		
Special Fire Fighting Procedures:	PRODUCTS OF COMBUSTION MAY BE TOXIC; AVOID BREATHING FUMES. FIRE FIGHTERS SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE, HIGH LISTED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.		
Unusual Fire and Explosion Hazards:	DUST CAN FORM AN EXPLOSIVE MIXTURE WITH AIR. ELIMINATION OF SOURCES OF IGNITION IS ESSENTIAL.		

IMPORTANT! (Non Flammable) Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention and protection information during the use of welding and allied procedures.

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200; STANDARD MUST BE CONSULTED FOR SPECIFIC REQUIREMENTS.

SECTION I IDENTITY

Product EXOROND 1020 AWS or other spec.
Manufacturer/Distributor Name UTP WELDING MATERIALS, INC.
Address 10401 GREENBOUGH STAFFORD, TEXAS 77477
Telephone Number (713) 497-1212 1-800-527-0791
Date Prepared REVISED 02/92

SECTION II HAZARDOUS INGREDIENTS/COMPONENTS

Chemical Identity	CAS	OSHA PEL(mg/M3)	ACGIH TLV(mg/M3) TWA	PTL(m3)
ALUMINUM	7429-90-5	N/R	TWA - 10	100%

*IMPORTANT! This section covers the material from which this product is manufactured. The fumes and gases produced during welding with this product are covered by SECTION VI. The term "hazardous" in "Hazardous Materials" should be interpreted as a term required and defined in OSHA 2265 and does not necessarily imply the existence of any hazard.

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 2452 C	Specific Gravity(H2O=1): 2.7
Vapor Pressure(mmHg.): 101284 C	Melting Point: n/a
Vapor Density (AIR=1): n/a	Evaporation Rate: n/a
Solubility in Water: Insoluble	
Appearance and Odor: Grayish metal powder, odorless	

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point(Method Used): N/A Flammable Limits oz/100ft: LEL 2-3 UEL 3
Extinguishing Media: Type D Special Fire Fighting Procedures: Avoid water, chlorinated hydrocarbons. Avoid generation of dust. Cover to eliminate oxygen. Isolate burning material with ring of dry sand. Do not disturb until completely cool.

Unusual Fire and Explosion Hazards: Reacts with water alkalis, acids to produce hydrogen. Dust-air mixture may explode violently when ignited. High heat of fire may cause underlying concrete to fracture.

IMPORTANT! (Non Flammable) Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention and protection information during the use of welding and allied procedures.

FIRE AND EXPLOSION HAZARD DATA FOR FLAME SPRAY POWDERS

Flash Point (Method Used): Most metal powders are combustible and can form explosive mixtures with air.

Flammable Limits: LEL - None Published UEL - None Published

Extinguishing Media: Dry Powder, Dry Sand, Dry Dolomite, Dry Graphite.

Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus with a full facepiece.

Unusual Fire and Explosion Hazards: There is a weak fire and explosion hazard when the dust is exposed to heat or flame. The explosion severity is 0.068 compared to 1.00 for Pittsburgh coal dust.

WARNING: Welding with these products produces chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm.

EMERGENCY AND FIRST AID PROCEDURES FOR METAL POWDERS

Wash with soap and water after prolonged handling of powder. Eating and drinking should be not permitted in areas where powder is handled, processed or stored. For eye contact, flush with generous amounts of water for at least 15 minutes. If irritation persists, see a physician.

SECTION II REACTIVITY DATA

Stability	Unstable n/a	Conditions to avoid n/a
	Stable yes	
Incompatibility:	water, acids, alkalis, halogenated hydrocarbons, oxidizers	
Hazardous Decomposition or Byproducts:	Hydrogen See below	
Hazardous	May occur n/a	Conditions to avoid n/a
Polymerization	Will not occur yes	

HAZARDOUS DECOMPOSITION PRODUCTS

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating, or galvanizing), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities). When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in SECTION II. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in SECTION II, plus those from the base metal and coating, etc., as noted above.

Reasonably expect fume constituents of this product could include: (see examples below)

Example for Carbon dioxide shielded flux-cored electrode (AWS 5.20 E70-T-1): Reasonably expected fume constituents of this product could include: primarily oxides of Iron; secondarily complex oxides of Manganese, Silicon, Titanium and Sodium.

Example for Stainless Steel covered electrodes (AWS 5.4): Reasonably expected fume constituents of this product would include: primarily fluorides and complex oxides of Iron and Silicon, secondarily complex oxides of Manganese.

The present OSHA TLV for hexavalent Chromium (Cr VI) is 0.05 mg/m³ which will result in a significant reduction from the 5 mg/m³ general welding fume (HDC) level.

Gaseous reaction products may include Carbon monoxide and Carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1-78, available from the American Welding Society, 2501 N.W. 7th Street, Miami, FL 33125.

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SECTION VI HEALTH HAZARD DATA

Route(s) of entry: Inhalation? ** Skin? unlikely Ingestion? unlikely
Health Hazards (Acute and Chronic) See Sec VI Threshold Limit Value See below
Carcinogenicity: N/A
Signs and Symptoms of Exposure Acute overexposure: unknown
Chronic overexposure: Inhalation of finely divided aluminum may be connected to pulmonary fibrosis.
** Gases and fumes generated while welding may be dangerous to your health.
ACUTE: Short-term exposure may result in discomfort such as dryness or irritation in the nose or throat, irritation of eyes, dizziness or nausea.
CHRONIC: Long-term exposure can lead to siderosis (Iron deposits in the lungs) and may effect pulmonary functions.
Medical Conditions Generally Aggravated by Exposure: unknown
Emergency and First Aid Procedures: INHALATION-remove from exposure. If subject is not breathing, follow standard procedure.
EYES-remove from exposure. Wash eyes with sterile solution.
SKIN- remove from exposure. Wash skin with soap and water.

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THRESHOLD LIMIT VALUE

The ACGIH-1980 (or latest data) recommended general limit for welding fume NOC- (not otherwise classified) is 5 mg/m3. ACGIH-1979 preface states, "The TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations. See SECTIONS V and SECTION VI for specific fume constituents which may modify this TLV.

EFFECTS OF OVER EXPOSURE:

Electric arc welding may create one or more of the following health hazards:
Fumes and gases can be dangerous to your health.
Arc Rays can injure eyes and burn skin.
Electric Shock can kill

Short term over exposure to welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of nose, throat, or eyes (see SECTION VI and VIII).

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SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: Reseal container.
Use non-sparking, conductive tools to transfer spilled material to leakproof container. Avoid dust clouds.
Waste Disposal Method: Dispose of safe, approved area in accordance with Federal, State and Local regulations.
Precautions to be taken in handling and storing: Avoid dust. Do not store in areas protected by automatic sprinkler. Do not store with oxidizers. Proper grounding of equipment is essential. Use non-sparking tools. All electrical equipment must be explosion proof. Avoid static build-up and discharge. NO SMOKING.

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SECTION VIII CONTROL MEASURES

Respiratory Protection (specify type): Nuisance dust mask, 3M type 8710 or ,
equival.

Ventilation: Local Exhaust n/a Special n/a
Mechanical(general) Explosion-proof Other n/a

Protective Gloves: must be conductive
Other Protective Clothing or Equipment: See below
Work/Hygienic Practices: See Below

SPECIAL PROTECTION INFORMATION AND PRECAUTIONS

Read and understand the manufacturer's instruction and the precautionary label on the product. See American National Standard, 2501 N.W. 7th Street, Miami, FL 33125 and OSHA Publication 2206 (29CFR1910), U. S. Government Printing Office, Washington, DC 20402 for more detail on many of the following.

SECTION VIII CONTROL MEASURES

VENTILATION

Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below TLV's in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.

RESPIRATORY PROTECTION

Use respirable fumes respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

EYE PROTECTION

Wear helmet or use face shield with filter lens, shade number (10) or darker. Provide protective screens and flash goggles, if necessary, to shield others.

PROTECTIVE CLOTHING

Wear hand, head, and body protection which help to prevent injury from radiation, sparks, and electrical shock. See Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, and well as dark substantial clothing. Train the welder not to touch live electrical parts.

Candidate Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Aluminum Metalized Thermal System							
UTP Welding Technology							
UTPlast ethylene/vinyl alcohol	SP-5	3	2	8	100%		Spray-Jet

Panel Numbers SS=493-514 Alum= 515-536 Coupled=537-550 CPVC=551-568

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	493		2.6	13.9	14.2	12.9	14.3	13.2	13.8
SS	494		2.8	14.1	22.6	15.1	22.3	14.8	18.6
SS	495		2.9	24.7	24.5	23.7	24.2	24.5	24.4
SS	496		2.8	24.3	22.5	19.6	22.6	19.8	22.0
SS	497		2.8	22.3	21.6	22.1	21.4	21.9	21.7
SS	498			17.2	23.1	17.4	23.2	17.3	20.2
SS	499			12	14.7	12.2	14.7	12.1	13.5
SS	500			16.9	21.7	16.6	21.7	16.4	19.1
SS	501			23.6	25.2	23.4	25.1	23.5	24.3
SS	502			16.4	17.3	16.6	16.8	16.3	16.7
SS	503			12.3	15	12.6	15	12.7	13.7
SS	504			21.9	25.3	21.9	25	22.4	23.6
SS	505			13.3	15.8	13.2	15.7	12.4	14.4
SS	506			20.2	19.7	20.2	19.2	20.2	19.8
SS	507			13.5	13.4	13.5	12.6	13	13.1
SS	508			12.9	13.3	12.9	14	12.6	13.3
SS	509			22.5	28	22.5	28	214.6	57.3
SS	510			19.2	23.6	19.7	23.6	19.3	21.5
SS	511			18.6	21	18.8	20.9	18.7	19.8
SS	512			17.4	19.8	17.6	19.7	17.3	18.6
SS	513			15.9	20.6	15.8	21.5	15.7	18.5
SS	514			15.2	20.8	15.7	20.9	15.1	18.1
ALUM	515			18.6	20	19.2	20.9	19.2	19.7
ALUM	516	4.7		25.3	30.2	25.4	30	25.4	27.8
ALUM	517			30.1	35.4	29.9	35.4	30.3	32.7
ALUM	518			26.6	28.9	26.4	28.9	26.8	27.8
ALUM	519			19.7	22.8	20.4	22.6	20.3	21.4
ALUM	520			23.9	26.5	23.9	26.5	23.9	25.2
ALUM	521	4.8		21.8	27	20.9	27	21.7	24.2
ALUM	522			24.3	26.3	24	26.1	24.5	25.3
ALUM	523			24.9	28.3	25	28.5	25.5	26.8
ALUM	524			28.5	29.2	28.7	29.2	28.8	29.0
ALUM	525			25.2	30.7	25.3	30.9	25.3	28.0
ALUM	526	4		27.2	25	21.8	25.2	21.9	24.4
ALUM	527			28.8	39	28.8	38.7	28.9	33.9
ALUM	528			24.2	28.8	24.3	28.9	24.3	26.6
ALUM	529			17.4	17.8	17.6	17.6	17.5	17.8
ALUM	530			24.2	27.3	24.3	27.4	24.4	25.9
ALUM	531	4.6		31.4	32.2	31.2	32	31.6	31.8
ALUM	532			19.1	22.9	19.2	22.6	19.6	4.8
ALUM	533			19.7	36.5	19.4	36.5	19.6	28.1
ALUM	534			36.5	26.9	36	26.9	36.3	31.7
ALUM	535			19.3	22.1	19	21.5	19	20.5
ALUM	536	4.8		34.9	39.6	35.6	39.4	35.6	37.5

SS CPL	537		35.6	51.5	36.4	48.2	35.2	44	41.8
AL CPL	537		20.3	19	18.9	18.3	19.1	16.4	18.7
SS CPL	538		57.2	33.2	56.7	33.4	54.1	37.3	45.3
AL CPL	538		22.7	23.6	25.3	23.7	24.3	24.3	24.0
SS CPL	539	2.7	3.9	6.1	4.3	5.6	4.4	5.9	5.0
AL CPL	539	4.7	19	24.6	24	23.9	24.9	24	23.4
SS CPL	540		14.9	17.9	15.8	17.3	16	17.1	16.5
AL CPL	540		22.4	25.8	22.7	27	22.7	27.1	24.6
SS CPL	541		17.7	15.2	19.5	15.2	18.8	16.8	17.2
AL CPL	541		33.5	35.9	34	38.4	29.2	31.5	33.8
SS CPL	542		31.5	27.5	31.2	24.3	29.4	26.8	28.5
AL CPL	542		33.9	28.4	29	29.4	26.7	26.9	29.4
SS CPL	543		16	16.6	16.8	16.7	16.4	16.5	16.5
AL CPL	543		17.7	15.1	18.4	14.8	18	14.3	16.4
SS CPL	544	2.9	32.7	33.3	32.3	34.1	31.3	33.4	32.9
AL CPL	544	4.7	22.8	26.5	23.8	26.5	23.4	25.2	24.7
SS CPL	545		19.2	16.6	27.4	17.9	25.7	17.6	20.7
AL CPL	545		13.7	12.4	15	12.8	13.9	12.4	13.4
SS CPL	546		25.7	22.2	27.3	23.2	27.2	20.7	24.4
AL CPL	546		23.3	33.8	23.8	33.2	21.6	33.1	28.1
SS CPL	547		24.1	24.5	24.9	24.4	24.7	24.3	24.5
AL CPL	547		19	20	18.7	19	17.7	19.9	19.1
SS CPL	548		18.2	27.4	18.4	23.3	18.3	25.1	21.8
AL CPL	548		26.8	27.6	28.1	28.5	30.1	27.9	28.5
SS CPL	549	2.8	26.9	27.8	31.5	26	28.1	23.8	27.4
AL CPL	549	4.6	9.4	9.1	11	9.1	9.9	9.1	9.6
SS CPL	550		21.4	13.5	19.7	14.8	19.2	13.1	17.0
AL CPL	550		24.7	17.4	25.2	18.4	24.6	17.4	21.3
CPVC	551		143	148	15	20	17.5		17.5
CPVC	552		154	153	26	25	25.5		25.5
CPVC	553		158	157	30	29	29.5		29.5
CPVC	554		168	165	40	37	38.5		38.5
CPVC	555		150	154	22	26	24		24.0
CPVC	556		151	157	23	29	26		26.0
CPVC	557		153	155	25	27	26		26.0
CPVC	558		150	151	22	23	22.5		22.5
CPVC	559		144	143	16	15	15.5		15.5
CPVC	560		145	149	17	21	19		19.0
CPVC	561		146	142	18	14	16		16.0
CPVC	562		155	157	27	29	28		28.0
CPVC	563		143	146	15	18	16.5		16.5
CPVC	564		146	145	18	17	17.5		17.5
CPVC	565		149	143	21	15	18		18.0
CPVC	566		150	146	22	18	20		20.0
CPVC	567		144	140	16	12	14		14.0
CPVC	568		146	151	18	23	20.5		20.5
Adh	569		35	49.1	33.7	46.4	35.6	49.6	41.6
Adh	570		19.2	26.2	21.3	25	20.9	26	23.1
Tabor	571		35.2	34.1	35.1	34.9	37.3	34.7	35.2
Tabor	572		53.4	45.3	51.6	44.7	52.4	45.1	47.8
Impact	573		32.5	42.2	35.5	43.9	38.1	43.5	39.3
Impact	574		26.3	33.5	26.7	33.3	27.2	33.5	30.1

average 22.2 23.9 22.4 23.8 24.7 23.6 23.8

Summary of Work Performed: Surface Prep Aluminum / Cut Alut overcoat

SYSTEM 7
EAA

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.		✓	
Grease/Oil Removal (Record Solvent)	NONE		
Clean Dry Abrasive	OIL	✓	
Recycled Abrasive Test	RETRIEVED SAMPLE		
Nozzle Air Pressure (Record)	NA		
Compressed Air Cleanliness (Record)	NOT TESTED		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)	SP-10			✓	
Profile (Record)	RECORDED ELSEWHERE			✓	
Type and Size Abrasive (Record)					
Dust and Abrasive Removal	AIR BLAST			✓	
Magnetic Base Reading (Record)	NA				

MIXING

Mfr/Product Name (Record)	UTP EVAPORANT 1530		
Batch Numbers (Record)	LOT 35243		
Material Temperature/Potlife (Record)	NA		
Correct Thinner/Amount (Record)	NA		
Time of Mix (Record)	NA		
Mix Ratio (Record)	NA		
Induction Period (Record)	NA		

APPLICATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Applicator's Name (Record)	Donal MURIEL				
Surface Prep. to Appl. (Record Time)	1:15				
Compressed Air Cleanliness	NA				
Time Application Began (Record)	1835				
Surrounding Air Cleanliness	0			✓	
Recoat Times Observed (Record Actual)	2/1				
Intercoat Cleanliness				✓	
Proper Pot Agitation	NA				
Application Equipment (Record)	UTP GRANULATED FUME SPRAY				
Time Application Complete (Record)					

BD78 W072

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: PROFILE UNEVEN & VARIATION
 SOME ABRASIVE PARTICLES REMAIN, PARTICULARLY IN ALUM FINISH

Inspector:
 Date: 1 / 194
 Report No.
 Page 01

ORIGINAL PAGE IS
OF POOR QUALITY

Panel/Tag #	Front	Front	Back
SS 493 2.4	SS PRESS-O-FILM™ No. <u>493 F</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>493 F</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>493 B</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 494 2.8	SS PRESS-O-FILM™ No. <u>494 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>494 F</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>494 B</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 495 2.9	SS PRESS-O-FILM™ No. <u>495 F</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>495 F</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>495 B</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 496 2.8	SS PRESS-O-FILM™ No. <u>496 F</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>496 F</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>496 B</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 497 2.8	SS PRESS-O-FILM™ No. <u>497 F</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>497 F</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS PRESS-O-FILM™ No. <u>497 B</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
Coated 516 AL 516 4.7	A PRESS-O-FILM™ No. <u>498 F</u> Mils. <u>4.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>498 F</u> Mils. <u>4.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>498 B</u> Mils. <u>4.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
521 AI 521 4.8	A PRESS-O-FILM™ No. <u>499 F</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>499 F</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>499 B</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
526 AI 526 4.0	A PRESS-O-FILM™ No. <u>500 F</u> Mils. <u>5.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>500 F</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>500 B</u> Mils. <u>3.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
531 AI 531 4.4	A PRESS-O-FILM™ No. <u>501 F</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>501 F</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A PRESS-O-FILM™ No. <u>501 B</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Coating	Panel/Tag #	Front	Front	Back
536 502 AI 5188 4.8	A No. 502 F Mils. 4.8 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	4 No. 502 F Mils. 5.3 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 502 B Mils. 4.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 539 SS 5189 2.7	SS No. 503 F Mils. 2.8 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 503 F Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 503 B Mils. 2.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 539 AI 5189 4.7	A No. 503 F Mils. 4.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 503 F Mils. 4.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 503 B Mils. 4.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 544 SS 5194 2.9	SS No. 504 F Mils. 3.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 504 F Mils. 2.9 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 504 B Mils. 2.6 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 544 AI 5194 4.7	A No. 504 F Mils. 4.2 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 504 F Mils. 4.8 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 504 B Mils. 5.0 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 549 SS 5195 2.8	SS No. 505 F Mils. 3.1 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 505 F Mils. 2.9 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	SS No. 505 B Mils. 2.5 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
Coupled 549 AI 5195 4.6	A No. 505 F Mils. 4.6 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 505 F Mils. 4.6 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	A No. 505 B Mils. 4.7 Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	
CPVC				

ADHS PRESS-O-FILM™
No. CS
Mils. 3.1
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

ADHS PRESS-O-FILM™
No. CS
Mils. 8.8
Gage less 2.0
Testex, Inc.
Newark, DE 19715
X COARSE (1.5-4.5)

NASA 7 Aluminized UTPlast

Manufacturer's Product Data and Recommendations							
Candidate	Manufacturer	Surface	Profile	Coats	DFT, ea.	Vol. Solids	Abrasive
	Product	Prep	mils	#	(mil)	%	used
Aluminum Metalized Thermal System							
UTP Welding Technology							
UTPlast ethylene/vinyl alcohol							
		SP-5	3	2	8	100%	Spray-Jet

Panel Numbers SS= 493-514 Alum= 515-536 Coupled= 537-550 CPVC= 551-568

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	493	✓	13.9	14.2	12.9	14.3	13.2	14.1	#DIV/0!
SS	494	✓	14.1	22.6	15.1	22.3	14.8	22.4	#DIV/0!
SS	495	✓	24.7	24.5	23.7	24.2	24.5	24.5	#DIV/0!
SS	496	✓	24.3	22.5	19.6	22.6	19.8	23.4	#DIV/0!
SS	497	✓	22.3	21.6	22.1	21.4	21.9	21	#DIV/0!
SS	498		17.2	23.1	17.4	23.2	17.3	23.2	#DIV/0!
SS	499		12.0	14.7	12.2	14.7	12.1	15.0	#DIV/0!
SS	500		16.9	21.7	16.6	21.7	16.4	21.2	#DIV/0!
SS	501		23.6	25.2	23.4	25.1	23.5	25.1	#DIV/0!
SS	502		16.4	17.3	16.6	16.8	16.3	17.0	#DIV/0!
SS	503		12.3	15	12.6	15	12.7	14.8	#DIV/0!
SS	504		21.9	25.3	21.9	25	22.4	25	#DIV/0!
SS	505		13.3	15.8	13.2	15.7	12.4	15.9	#DIV/0!
SS	506		20.2	19.7	20.2	19.2	20.2	19.1	#DIV/0!
SS	507		13.5	13.4	13.5	12.6	13	12.4	#DIV/0!
SS	508		12.9	13.3	12.9	14.0	12.6	13.8	#DIV/0!
SS	509		22.5	28	22.5	28	21.4	28	#DIV/0!
SS	510		19.2	23.6	19.7	23.6	19.3	23.6	#DIV/0!
SS	511		18.6	21	18.8	20.9	18.7	21	#DIV/0!
SS	512		17.4	19.8	17.6	19.7	17.3	19.6	#DIV/0!
SS	513		15.9	20.6	15.8	21.5	15.7	21.5	#DIV/0!
SS	514		15.2	20.8	15.7	20.9	15.1	20.9	#DIV/0!
ALUM	515		18.6	20	19.2	20.9	19.2	20.5	#DIV/0!
ALUM	516		25.3	30.2	25.4	30.0	25.4	30.7	#DIV/0!
ALUM	517		30.1	35.4	29.9	35.4	30.3	35	#DIV/0!
ALUM	518		26.6	28.9	26.4	28.9	26.8	29	#DIV/0!
ALUM	519		19.7	22.8	20.4	22.6	20.3	22.7	#DIV/0!
ALUM	520		23.9	26.5	23.9	26.5	23.9	26.5	#DIV/0!
ALUM	521		21.8	27.0	21.9	27.0	21.7	27.0	#DIV/0!
ALUM	522		24.3	26.3	24	26.1	24.5	26.3	#DIV/0!
ALUM	523		24.9	28.3	25	28.5	25.5	28.4	#DIV/0!

UTP Welding Technology

Coating System 7 Aluminum Metalized Ti UTPlastPage of

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM 524		28.5	29.2	28.7	29.2	28.8	29.3	#DIV/0!
ALUM 525		25.2	30.7	25.3	30.9	25.3	30.6	#DIV/0!
ALUM 526		27.2	25	21.8	25.2	21.9	25.1	#DIV/0!
ALUM 527		28.8	39	28.8	38.7	28.9	39	#DIV/0!
ALUM 528		24.2	28.8	24.3	28.9	24.3	29.0	#DIV/0!
ALUM 529		17.4	12.8	12.6	18.4	12.5	19.1	#DIV/0!
ALUM 530		24.2	27.3	24.3	27.4	24.4	27.5	#DIV/0!
ALUM 531		31.4	32.2	31.2	32	31.6	32.1	#DIV/0!
ALUM 532		19.1	22.9	19.2	22.6	19.4	22.7	4.8
ALUM 533		19.7	36.5	19.4	36.5	19.6	36.6	#DIV/0!
ALUM 534		36.5	26.9	36	26.9	36.3	27.5	#DIV/0!
ALUM 535		19.3	22.1	19	21.5	19	22	#DIV/0!
ALUM 536		34.9	39.6	35.8	39.4	35.6	39.4	#DIV/0!
SS CPL 537		35.6	81.5	36.4	48.2	35.2	44	#DIV/0!
AL CPL 537		20.3	19	18.9	18.3	19.1	16.4	#DIV/0!
SS CPL 538		57.2	33.2	56.7	33.4	54.1	37.3	#DIV/0!
AL CPL 538		22.7	23.6	25.3	23.7	24.3	24.3	#DIV/0!
SS CPL 539		3.9	6.1	4.3	5.6	4.4	5.9	#DIV/0!
AL CPL 539		19	24.6	24	23.9	24.9	24	#DIV/0!
SS CPL 540		14.9	17.9	15.8	17.3	16.0	17.1	#DIV/0!
AL CPL 540		22.4	25.8	22.7	27	22.7	27.1	#DIV/0!
SS CPL 541		17.7	15.2	19.5	15.2	18.8	16.8	#DIV/0!
AL CPL 541		33.5	35.9	34	38.4	29.2	31.5	#DIV/0!
SS CPL 542		31.5	27.5	31.2	24.3	29.4	26.8	#DIV/0!
AL CPL 542		33.9	28.4	29	29.4	28.7	26.9	#DIV/0!
SS CPL 543		16.0	16.6	16.8	16.7	16.4	16.5	#DIV/0!
AL CPL 543		17.7	15.1	18.4	14.8	18	14.3	#DIV/0!
SS CPL 544		32.7	33.3	32.3	34.1	31.3	33.4	#DIV/0!
AL CPL 544		22.8	26.5	23.8	26.5	23.4	25.2	#DIV/0!
SS CPL 545		19.2	16.6	27.4	17.9	25.7	17.4	#DIV/0!
AL CPL 545		13.7	12.4	15.0	12.8	13.9	12.4	#DIV/0!
SS CPL 546		25.7	22.2	27.3	23.2	27.2	20.7	#DIV/0!
AL CPL 546		23.3	33.8	23.8	33.2	21.6	33.1	#DIV/0!
SS CPL 547		24.1	24.5	24.9	24.4	24.7	24.8	#DIV/0!
AL CPL 547		19.0	20.0	18.7	19.0	17.7	19.9	#DIV/0!

UTP Welding Technology

Coating System 7 Aluminum Metalized Ti UTPlastPage of

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 548		18.2	27.4	18.4	23.3	18.3	25.1	#DIV/0!
AL CPL 548		28.8	27.6	28.1	28.5	30.1	27.9	#DIV/0!
SS CPL 549		26.9	27.8	31.5	26	28.1	23.8	#DIV/0!
AL CPL 549		9.4	9.1	11	9.1	9.9	9.1	#DIV/0!
SS CPL 550		21.4	13.5	19.7	14.8	19.2	13.1	#DIV/0!
AL CPL 550		24.7	17.4	25.2	18.4	24.6	17.4	#DIV/0!
CPVC 551		143	148	Only coated on one side				#DIV/0!
CPVC 552		154	153		"			#DIV/0!
CPVC 553		158	157		"			#DIV/0!
CPVC 554		158	165		"			#DIV/0!
CPVC 555		150	154		"			#DIV/0!
CPVC 556		151	157		"			#DIV/0!
CPVC 557		153	155		"			#DIV/0!
CPVC 558		150	151		"			#DIV/0!
CPVC 559		144	143		"			#DIV/0!
CPVC 560		145	149		"			#DIV/0!
CPVC 561		146	142		"			#DIV/0!
CPVC 562		155	157		"			#DIV/0!
CPVC 563		143	146		"			#DIV/0!
CPVC 564		146	145		"			#DIV/0!
CPVC 565		149	143		"			#DIV/0!
CPVC 566		150	146		"			#DIV/0!
CPVC 567		144	140		"			#DIV/0!
CPVC 568		146	151		"			#DIV/0!
Adh 569		35	49.1	33.7	46.4	35.6	49.6	#DIV/0!
Adh 570		19.2	26.2	21.3	25	20.9	26	#DIV/0!
Tabor 571		35.2	34.1	35.1	34.9	37.3	34.1	#DIV/0!
Tabor 572		53.4	45.3	51.6	44.7	52.4	45.1	#DIV/0!
Impact 573		32.5	42.2	35.5	43.9	38.1	43.5	#DIV/0!
Impact 574		26.3	33.5	26.7	33.3	27.2	33.5	#DIV/0!

Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, es. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Aluminum Metalized Thermal System							
Elite Coatings Elite 8844 amine-epoxy	SP-5	2	2	4 to 5	70%		B,R,C,A

Panel Numbers SS=575-596 Alum=597-618 Coupled=619-632 CPVC=633-650

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	575	3.1	12.5	12.3	12.4	12.5	12.8	12.4
SS	576		11.9	10.7	11.9	10.9	11.7	11.3
SS	577		10.4	10.4	12.8	12.7	10.5	11.2
SS	578		13	11.1	12.8	10.2	13	11.9
SS	579		11.2	11.2	11.1	10.5	10.3	10.8
SS	580	3	10.5	10.1	10	10.5	10.1	10.3
SS	581		9.4	11.7	9.9	12.9	9.4	11.0
SS	582		9.9	11.7	9.7	11.8	9.8	10.8
SS	583		11.8	12	11.5	11.9	12	11.9
SS	584		12.1	11.4	12.7	10.8	12.5	11.7
SS	585		10.4	11.4	10.6	11.4	10.9	11.1
SS	586	3.4	9.7	12	10.1	11.9	10.1	11.0
SS	587		12.5	10.4	12.4	10.6	12.5	11.5
SS	588		11.5	10.2	11.4	10.7	11.8	11.0
SS	589		12.5	13	12.3	13.1	12.4	12.6
SS	590		12.7	15.3	12.7	12.8	12.8	13.2
SS	591	3.2	13.1	10.8	13.2	11.2	13.2	12.1
SS	592		12.1	11.2	12.2	11.6	12.2	11.9
SS	593		11.7	11.9	11.9	13.3	12	12.1
SS	594		13.5	12.7	13.9	12.5	13.7	13.2
SS	595		11.8	9.3	11.6	9.4	11.6	10.6
SS	596	3.2	11.5	10.8	11	10.6	11.4	11.0
ALUM	597	4.3	11.1	11.5	11.8	11.5	11.4	11.5
ALUM	598		9.7	10.7	9.6	10.6	9.5	10.2
ALUM	599		8.2	7.9	8	8	8.1	8.0
ALUM	600		10.1	9.3	9.4	9.6	10.1	9.6
ALUM	601		9.8	8.5	9.6	8.7	9.9	9.2
ALUM	602	4.7	10.3	10.6	10.3	10.7	10.8	10.5
ALUM	603		8.9	9.9	8.7	9	8.4	9.0
ALUM	604		8.9	10.3	8.7	9.3	8.2	9.3
ALUM	605		9	11.7	8.9	11.9	8.9	10.3
ALUM	606		8.6	9.1	8.9	9.3	8.9	9.0
ALUM	607	4.1	10.9	8.3	10.7	8.4	10.9	9.6
ALUM	608		10.8	9.1	11.2	9.2	10.7	10.1
ALUM	609		10.8	9.1	11	9	10.7	9.9
ALUM	610		9.4	10.6	9.4	11	9.7	10.2
ALUM	611		10.1	9.4	10.6	9.9	10.6	10.0
ALUM	612	4.1	9.1	12.6	8.8	12.8	8.5	10.8
ALUM	613		8.3	9	8.7	9.5	8.5	8.9
ALUM	614		9.6	11.1	9.6	11.1	9.4	4.8
ALUM	615		10.5	12.6	10.8	10.3	11.8	11.1
ALUM	616		8.1	13.3	8.2	12.4	7.9	10.5
ALUM	617	3.8	9.3	12.2	9.1	12.5	9.2	10.7
ALUM	618		12.1	11.2	11.7	11.2	12.7	11.6

SS CPL	619		8.8	9.2	8.7	8.5	8.4	8.5	8.8
AL CPL	619		7.6	6.9	8.2	6.4	8.7	7.8	7.5
SS CPL	620	2.9	9.1	7.2	9.1	8.3	9	7.3	8.3
AL CPL	620	4	6.4	10	6.7	9.3	6.3	10.1	8.1
SS CPL	621		6.9	9.3	6.8	8.7	6.8	8.6	7.9
AL CPL	621		7.4	9.2	8.8	8.7	7.8	8.9	8.5
SS CPL	622		7.3	8	8.3	8.8	7.6	8.2	8.0
AL CPL	622		9.4	10.1	9.2	10.1	8.8	9.1	9.5
SS CPL	623		9.9	9.2	10.4	9.4	10.1	9.5	9.8
AL CPL	623		10.1	10.2	8.9	10.1	9.6	10.3	9.9
SS CPL	624	2.5	7.5	9.3	8.4	11.2	7	9.5	8.8
AL CPL	624	4.4	7.1	9.5	8.1	9.8	8.7	9.5	8.8
SS CPL	625		9.2	9.9	8.3	10.9	9	11	9.7
AL CPL	625		9.6	10.5	10.2	13.3	10	8.4	10.3
SS CPL	626		7.4	7.3	6.3	7.3	7.6	8.3	7.4
AL CPL	626		6.9	9.7	7.9	9.3	8.4	10.7	8.8
SS CPL	627		7.2	10.2	6.9	9.9	6.4	9.5	8.4
AL CPL	627		8.3	8	8.8	7.9	8.5	8.2	8.3
SS CPL	628	3	8	8.3	7.1	8.1	8	8.4	8.0
AL CPL	628	4.3	7.8	10	7.5	11.6	7	10.7	9.1
SS CPL	629		7.6	8.6	6.9	8	7.8	8.6	7.9
AL CPL	629		7.9	8.4	8.2	10.1	8.6	8.8	8.7
SS CPL	630		8.8	7.6	8.2	8.1	8.8	8.2	8.3
AL CPL	630		11.2	9.3	10.1	9.4	10	9.3	9.9
SS CPL	631		10.8	9.2	10.7	9.4	11.9	8.5	10.1
AL CPL	631		8.8	10.2	9.5	11	9.3	10.5	9.9
SS CPL	632		8.7	9.7	8.5	9.7	8.2	9.5	9.1
AL CPL	632		7.6	9	9.1	8.2	9.5	8.7	8.7
CPVC	633		141	149	13	21	17	8.5	8.5
CPVC	634		150	152	22	24	23	11.5	11.5
CPVC	635		157	149	29	21	25	12.5	12.5
CPVC	636		150	149	22	21	21.5	10.75	10.8
CPVC	637		151	152	23	24	23.5	11.75	11.8
CPVC	638		147	155	19	27	23	11.5	11.5
CPVC	639		150	155	22	27	24.5	12.25	12.3
CPVC	640		149	155	21	27	24	12	12.0
CPVC	641		138	140	10	12	11	5.5	5.5
CPVC	642		144	146	16	18	17	8.5	8.5
CPVC	643		147	146	19	18	18.5	9.25	9.3
CPVC	644		151	153	23	25	24	12	12.0
CPVC	645		149	152	21	24	22.5	11.25	11.3
CPVC	646		151	152	23	24	23.5	11.75	11.8
CPVC	647		145	141	17	13	15	7.5	7.5
CPVC	648		150	150	22	22	22	11	11.0
CPVC	649		145	150	17	22	19.5	9.75	9.8
CPVC	650		146	146	18	18	18	9	9.0
Adh	651		20.5	18.8	19.1	19.2	18.8	19.8	19.4
Adh	652		19	16.2	19.4	15.7	18.9	15.1	17.4
Tabor	653		14.6	13.8	15.2	14.5	14.4	14.4	14.5
Tabor	654		17.4	13.7	17.5	13.4	18.1	13.5	15.2
Impact	655		13.9	16.7	13.9	16.9	13.9	17.2	15.4
Impact	656		15.3	16.4	16.2	16.8	15.2	16.6	16.1

average 9.8 10.2 9.8 10.3 9.9 10.2 10.4



ELITE 8844

DESCRIPTION:	A high build, high gloss cycloaliphatic amine-epoxy with excellent chemical abrasion and moisture resistance.
COLORS:	Full range of colors.
V.O.C.	2.342
SOLIDS CONTENT:	Volume - 70.0 (+/-) 2% for mixed paint
THEORETICAL COVERAGE:	1091 square feet per gallon per mil
FLASH POINT:	Above 80°F.
POT LIFE:	6 hours minimum at 70°F.
SHELF LIFE:	Over one year.
AVERAGE DRY TIME: (at 75°F.)	To touch 2 hours To handle or recoat - 6 hours.
RECOMMENDED USES:	For severely corrosive environments in marine, pulp and paper, kaolin, fertilizer, chemical and petro-chemical industries. Recommended for lining water tanks and chemical process tanks. An Elite representative should be contacted for specific recommendations.
RECOMMENDED PRIMERS:	Elite 8844 primer or other approved Elite primers.
APPLICATION:	Apply in good weather, when air and surface temperatures are 50°F. or above. Surface temperatures must be 5° above dew point. Bring temperature of product to 70 - 100°F. prior to mixing and spraying. May be applied by brush, roller, conventional or airless spray. To obtain maximum edge protection and film build, spray application is recommended. Strain material before spray application. Wet film thickness of 6 mils will give 4 mils of dry film thickness. Allow for losses due to application methods, conditions and surface irregularities.

Elite Coatings Company

P. O. BOX 130 — GORDON, GEORGIA 31031 • PHONE (912) 628-2111 • FAX (912) 628-5870

Seller's liability for damages arising out of breach of warranty or negligence is expressly limited to the purchase price of the product delivered hereunder. All technical advice, responsibility for use and serviceability is left to the Buyer. Seller grants no express or implied warranty, including a warranty of fitness for a particular purpose.

and risk. Seller assumes no responsibility for results obtained or damages incurred from the use of Elite in whole or in part. Such recommendations include an acknowledgment that the product is not intended for use in applications where it is not specifically recommended.

**ORIGINAL PAGE IS
OF POOR QUALITY**

ELITE 8844

- MIX RATIO:** 4 parts Part A to 1 part B.
- THINNING:** Elite T-33
- SPRAY EQUIPMENT:** As recommended or equal.
Conventional spray = DeVilbiss MBC-510 Gun: E tip, 704 air cap, 3/8" ID material hose, double regulated pressure tank with oil and moisture separator. Airless Spray - .015" orifice tip, 1/4" teflon material hose, 28:1 ratio pump.
- SURFACE PREPARATION:** Commercial blast in accordance with SSPC-SP6. All grease, oil, etc. must be removed prior to application by detergent hydro-wash and/or solvent washing. SSPC-SP5 recommended for immersion service.
- CLEANUP:** Clean all equipment immediately after use with T-7 or ketone thinner.
- CONTINUITY TEST:**
(when required) A non-destructive (100 volts or less) holiday detector should be used to check continuity of dried film. A suitable type is Tinker-Razor Model M-1. Repair of holidays should be done in accordance with job specifications or as otherwise recommended.
- WELDING:** In the event welding or flame cutting is performed on metal coated with this product, do so in accordance with instructions in U.S.A. Standard Z 49.1-1967 "Safety in Welding and Cutting". All welded, burned or otherwise damaged areas should be re-prepared to base metal and recoated as specified.
- TOPCOAT:** Elite two component Polyurethane
- SAFETY:** **WARNING:** Vapor harmful. Causes eye irritation. Combustible. Contains organic solvent. Avoid breathing vapor. Avoid contact with eyes. Keep away from heat and flame. Wash thoroughly after handling. Use only with adequate ventilation. Use suitable respiratory equipment, as necessary. Keep container closed.

MATERIAL SAFETY DATA SHEET

ITE COATINGS CO., INC.
O. BOX 130
GORDON, GA 31031

INFORMATION TELEPHONE NO.: 912-628-2111
EMERGENCY TELEPHONE NO.: 800-424-9300

PREPARATION DATE: 09/20/90

REPLACES DATE: 05/10/90

PREPARER: SCR

SECTION I - PRODUCT IDENTIFICATION

8844 WHITE PART A
EPOXY
50347001

SECTION II - HAZARDOUS INGREDIENTS

CHEMICAL NAME	CAS NUMBER	WT. PERCENT IS LESS THAN	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mmHg 20C	KNOWN OR SUSPECTED CARCINOGEN
			(TLV-TWA)	(TLV-STEL)	(PEL)		
EPOXY RESIN		15%	NOT EST.	NOT EST.	NOT EST.	0.0	NO
EPOXY RESIN		25%	10.0 mg/m3	NOT EST.	NOT EST.	0.0	NO
PETROLEUM HYDROCARBON	64742-95-6	5%	NOT EST.	NOT EST.	100 ppm	3.0	NO
XYLENE, DIMETHYL BENZENE	NE 1330-20-7	10%	100 ppm	150 ppm	100 ppm	21.0	NO
N-BUTANOL	71-36-3	5%	50 ppm	NOT EST.	50 ppm	2.6	NO
ETHYL-2-PENTANONE	108-10-1	5%	50 ppm	NOT EST.	100 ppm	16.0	NO
BUTOXY BUTANOL	111-76-2	5%	50 ppm	NOT EST.	NOT EST.	0.6	NO
PROPYLENE GLYCOL METHYL ETHER	107-98-2	5%	100 ppm	150 ppm	NOT EST.	12.5	NO

N.A. - NOT APPLICABLE

SECTION III - PHYSICAL DATA

BOILING RANGE : 241-340 F
ODOR : AROMATIC
APPEARANCE : WHITE LIQUID
VOLATILE BY WEIGHT: 19.4%
VOLATILE BY VOLUME: 34.0%

VAPOR DENSITY : IS HEAVIER THAN AIR
EVAPORATION RATE: IS SLOWER THAN BUTYL
ACETATE
SOLUBILITY : INSOLUBLE IN H2O
PRODUCT DENSITY : 12.6 LBS./GAL. (U.S.)

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

CONDITIONS TO AVOID: AVOID HEAT, SPARKS, AND OPEN FLAME.

INCOMPATIBILITY: NONE

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: WARNING! FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. TRANSFER TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUAL WITH AN ABSORBENT SUCH AS CLAY OR SAND.

WASTE DISPOSAL METHOD: PLACE CONTAMINATED MATERIAL IN SUITABLE CONTAINERS FOR DISPOSAL.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SECTION II) USE A NIOSH - APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE - SUPPLYING RESPIRATOR OR AN AIR - PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

VENTILATION: USE EXPLOSION - PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.

PROTECTIVE GLOVES: WEAR IMPERVIOUS GLOVES.

EYE PROTECTION: WEAR CHEMICAL GOGGLES TO PREVENT EYE CONTACT.

OTHER PROTECTIVE EQUIPMENT: WEAR PROTECTIVE CLOTHING AS REQUIRED TO PREVENT SKIN CONTACT.

HYGIENIC PRACTICES: WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Candidate Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mls	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Aluminum Metalized Thermal System							
Elite Coatings							
Elite 8844	SP-5	2	2	4 to 5	70%		B,R,C,A
amine-epoxy							

Panel Numbers SS=575-596 Alum=597-618 Coupled=619-632 CPVC=633-650

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	575	3.1	12.5	12.3	12.4	12.5	12.8	12.4
SS	576		11.9	10.7	11.9	10.9	11.7	11.3
SS	577		10.4	10.4	12.8	12.7	10.5	11.2
SS	578		13	11.1	12.8	10.2	13	11.9
SS	579		11.2	11.2	11.1	10.5	10.3	10.8
SS	580	3	10.5	10.1	10	10.5	10.1	10.3
SS	581		9.4	11.7	9.9	12.9	9.4	11.0
SS	582		9.9	11.7	9.7	11.8	9.8	10.8
SS	583		11.8	12	11.5	11.9	12	11.9
SS	584		12.1	11.4	12.7	10.8	12.5	11.7
SS	585		10.4	11.4	10.6	11.4	10.9	11.1
SS	586	3.4	9.7	12	10.1	11.9	10.1	11.0
SS	587		12.5	10.4	12.4	10.6	12.5	11.5
SS	588		11.5	10.2	11.4	10.7	11.8	11.0
SS	589		12.5	13	12.3	13.1	12.4	12.6
SS	590		12.7	15.3	12.7	12.8	12.8	13.2
SS	591	3.2	13.1	10.8	13.2	11.2	13.2	12.1
SS	592		12.1	11.2	12.2	11.6	12.2	11.9
SS	593		11.7	11.9	11.9	13.3	12	12.1
SS	594		13.5	12.7	13.9	12.5	13.7	13.2
SS	595		11.8	9.3	11.6	9.4	11.6	10
SS	596	3.2	11.5	10.8	11	10.6	11.4	11.0
ALUM	597	4.3	11.1	11.5	11.8	11.5	11.4	11.5
ALUM	598		9.7	10.7	9.6	10.6	9.5	10.2
ALUM	599		8.2	7.9	8	8	8.1	8.0
ALUM	600		10.1	9.3	9.4	9.6	10.1	9.6
ALUM	601		9.8	8.5	9.6	8.7	9.9	9.2
ALUM	602	4.7	10.3	10.6	10.3	10.7	10.8	10.5
ALUM	603		8.9	9.9	8.7	9	8.4	9.0
ALUM	604		8.9	10.3	8.7	9.3	8.2	9.3
ALUM	605	*	9	11.7	8.9	11.9	8.9	10.3
ALUM	606		8.6	9.1	8.9	9.3	8.9	9.0
ALUM	607	4.1	10.9	8.3	10.7	8.4	10.9	9.6
ALUM	608		10.8	9.1	11.2	9.2	10.7	10.1
ALUM	609		10.8	9.1	11	9	10.7	9.9
ALUM	610		9.4	10.6	9.4	11	9.7	10.2
ALUM	611		10.1	9.4	10.6	9.9	10.6	10.0
ALUM	612	4.1	9.1	12.6	8.8	12.8	8.5	10.8
ALUM	613		8.3	9	8.7	9.5	8.5	8.9
ALUM	614		9.6	11.1	9.6	11.1	9.4	4.8
ALUM	615		10.5	12.6	10.8	10.3	11.8	11.1
ALUM	616		8.1	13.3	8.2	12.4	7.9	10.5
ALUM	617	3.8	9.3	12.2	9.1	12.5	9.2	10.7
ALUM	618		12.1	11.2	11.7	11.2	12.7	11.6

SS CPL	619		8.8	9.2	8.7	8.5	8.4	9.3	8.8
AL CPL	619		7.6	6.9	8.2	6.4	8.7	7.8	7.6
SS CPL	620	2.9	9.1	7.2	9.1	8.3	9	7.3	8.3
AL CPL	620	4	6.4	10	6.7	9.3	6.3	10.1	8.1
SS CPL	621		6.9	9.3	6.8	8.7	6.8	8.6	7.9
AL CPL	621		7.4	9.2	8.8	8.7	7.8	8.9	8.5
SS CPL	622		7.3	8	8.3	8.8	7.6	8.2	8.0
AL CPL	622		9.4	10.1	9.2	10.1	8.8	9.1	9.5
SS CPL	623		9.9	9.2	10.4	9.4	10.1	9.5	9.8
AL CPL	623		10.1	10.2	8.9	10.1	9.6	10.3	9.9
SS CPL	624	2.5	7.5	9.3	8.4	11.2	7	9.5	8.8
AL CPL	624	4.4	7.1	9.5	8.1	9.8	6.7	9.5	8.8
SS CPL	625		9.2	9.9	8.3	10.9	9	11	9.7
AL CPL	625		9.6	10.5	10.2	13.3	10	8.4	10.3
SS CPL	626		7.4	7.3	6.3	7.3	7.6	8.3	7.4
AL CPL	626		6.9	9.7	7.9	9.3	8.4	10.7	8.8
SS CPL	627		7.2	10.2	6.9	9.9	6.4	9.5	8.4
AL CPL	627		8.3	8	8.8	7.9	8.5	8.2	8.3
SS CPL	628	3	8	8.3	7.1	8.1	8	8.4	8.0
AL CPL	628	4.3	7.8	10	7.5	11.6	7	10.7	9.1
SS CPL	629		7.6	8.6	6.9	8	7.8	8.6	7.9
AL CPL	629		7.9	8.4	8.2	10.1	8.6	8.8	8.7
SS CPL	630		8.8	7.6	8.2	8.1	8.8	8.2	8.3
AL CPL	630		11.2	9.3	10.1	9.4	10	9.3	9.9
SS CPL	631		10.8	9.2	10.7	9.4	11.9	8.5	10.1
AL CPL	631		8.8	10.2	9.5	11	9.3	10.5	9.9
SS CPL	632		8.7	9.7	8.5	9.7	8.2	9.5	9.1
AL CPL	632		7.6	9	9.1	8.2	9.5	8.7	8.7
CPVC	633		141	149	13	21	17	8.5	8.5
CPVC	634		150	152	22	24	23	11.5	11.5
CPVC	635		157	149	29	21	25	12.5	12.5
CPVC	636		150	149	22	21	21.5	10.75	10.8
CPVC	637		151	152	23	24	23.5	11.75	11.8
CPVC	638		147	155	19	27	23	11.5	11.5
CPVC	639		150	155	22	27	24.5	12.25	12.3
CPVC	640		149	155	21	27	24	12	12.0
CPVC	641		138	140	10	12	11	5.5	5.5
CPVC	642		144	146	16	18	17	8.5	8.5
CPVC	643		147	146	19	18	18.5	9.25	9.3
CPVC	644		151	153	23	25	24	12	12.0
CPVC	645		149	152	21	24	22.5	11.25	11.3
CPVC	646		151	152	23	24	23.5	11.75	11.8
CPVC	647		145	141	17	13	15	7.5	7.5
CPVC	648		150	150	22	22	22	11	11.0
CPVC	649		145	150	17	22	19.5	9.75	9.8
CPVC	650		146	146	18	18	18	9	9.0
Adh	651		20.5	18.8	19.1	19.2	18.8	19.8	19.4
Adh	652		19	16.2	19.4	15.7	18.9	15.1	17.4
Tabor	653		14.6	13.8	15.2	14.5	14.4	14.4	14.5
Tabor	654		17.4	13.7	17.5	13.4	18.1	13.5	15.2
Impact	655		13.9	16.7	13.9	16.9	13.9	17.2	15.4
Impact	656		15.3	16.4	16.2	16.8	15.2	16.6	16.1

average

9.8

10.2

9.8

10.3

9.9

10.2

10.4

DAILY INSPECTION REPORT-TEST PANEL RECORD (STEEL)

CLIENT: *WFSH*JCB NO: *H5341*Summary of Work Performed: *Applied Elite*

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfgr/Product Name (Record)	<i>Elite</i>		
Batch Numbers (Record)	<i>A) 02164032 B) 7152</i>		
Material Temperature/Potlife (Record)	<i>70°</i>		
Correct Thinner/Amount (Record)	<i>None</i>		
Time of Mix (Record)	<i>10:00</i>		
Mix Ratio (Record)	<i>4:1</i>		
Induction Period (Record)	<i>—</i>		

APPLICATION

Ambient Conditions (Record)	DB: 74° WB: 64° RH: 58% DP: 58% ST:		
Applicator's Name (Record)	C. Pacle		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	10:15		
Surrounding Air Cleanliness			
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness			
Proper Pot Agitation			
Application Equipment (Record)	Brush		
Time Application Complete (Record)	10:20		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *Wet Coating shows color difference than when applied previously. Also fish eyes and Pinholes developed with application as same as previous Application.*

Notes: Panel 1 & 2 showed minor pitting

Inspector: *C. Pacle*Date: *8 119 194*

Report No.

Page *01*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT: NASA

JCB NO: H-6391

Summary of Work Performed: Apply Elite on 55 panels

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	CP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	Elite 8844		
Batch Numbers (Record)	A-02164002 / B-?		
Material Temperature/Potlife (Record)	6 hrs		
Correct Thinner/Amount (Record)			
Time of Mix (Record)	2:45 pm		
Mix Ratio (Record)	4:1		
Induction Period (Record)	None		

APPLICATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Applicator's Name (Record)	Cris Poche			✓	
Surface Prep. to Appl. (Record Time)				✓	
Compressed Air Cleanliness				✓	
Time Application Began (Record)	2:53 pm			✓	
Surrounding Air Cleanliness				✓	
Recoat Times Observed (Record Actual)				✓	
Intercoat Cleanliness				✓	
Proper Pot Agitation	N/A				
Application Equipment (Record)	DeVilbiss 64 Cap				
Time Application Complete (Record)	3:10 pm				

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: R. Beggs

Date: 14 1/9 194

Report No.

Page of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT:

NASA

JCB NO:

H-6341

Summary of Work Performed:

Apply Elite 8844 to Roable panels (2nd coat)

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr./Product Name (Record)	Elite 8844		
Batch Numbers (Record)	A-02164002 / 0-?		
Material Temperature/Potlife (Record)	74°F	6 hrs.	
Correct Thinner/Amount (Record)		None	
Time of Mix (Record)	9:50 am		
Mix Ratio (Record)	4:1		
Induction Period (Record)	none		

APPLICATION

Ambient Conditions (Record)	DB: 73°F WB: 63°F RH: 57% DP: 57°F ST: 68°F		
Applicator's Name (Record)	Ray Baggett		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		✓	
Time Application Began (Record)	10:00 am		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation	NA		
Application Equipment (Record)	Devlbiss 64 Cap		
Time Application Complete (Record)	10:45 am		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: R. Baggett

Date:

4/1/94

Report No.

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of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: *NA 5A*JCB NO: *H-6341*Summary of Work Performed: *Apply 2nd coat Elite 8844*

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

70% SEV

Mfgr/Product Name (Record)	<i>Elite 844</i>		
Batch Numbers (Record)	<i>A-02164002 / B-?</i>		
Material Temperature/Potlife (Record)	<i>74°F</i>	<i>6 hrs</i>	
Correct Thinner/Amount (Record)		<i>None</i>	
Time of Mix (Record)	<i>2:15</i>		
Mix Ratio (Record)	<i>4:1</i>		
Induction Period (Record)	<i>None</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>75°F</i> WB: <i>65°F</i> RH: <i>58%</i> DP: <i>59%</i> ST: <i>72°F</i>
Applicator's Name (Record)	
Surface Prep. to Appl. (Record Time)	
Compressed Air Cleanliness	
Time Application Began (Record)	<i>2:30p</i>
Surrounding Air Cleanliness	
Recoat Times Observed (Record Actual)	
Intercoat Cleanliness	
Proper Pot Agitation	
Application Equipment (Record)	<i>Devilbiss 64 Cap</i>
Time Application Complete (Record)	<i>6:20p</i>

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector:
Date: <i>4/1/94</i>
Report No.
Page <i>of</i>

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: *NASA*JCB NO: *H-6341*Summary of Work Performed: *Apply Elite 8844 to Aluminized substrate.*

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	<i>Elite 8844</i>		
Batch Numbers (Record)	<i>A-02164002 / B-?</i>		
Material Temperature/Potlife (Record)	<i>74°F</i>	<i>6 hrs.</i>	
Correct Thinner/Amount (Record)		<i>None</i>	
Time of Mix (Record)	<i>2:15pm</i>	<i>3:10</i>	
Mix Ratio (Record)	<i>4:1</i>		
Induction Period (Record)	<i>None</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>76°F</i> WB: <i>61°F</i> RH: <i>41%</i> DP: <i>51°F</i> ST: <i>74°F</i>		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness		<input checked="" type="checkbox"/>	
Time Application Began (Record)	<i>2:30pm</i>	<i>3:15</i>	
Surrounding Air Cleanliness		<input checked="" type="checkbox"/>	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness			
Proper Pot Agitation	<i>NA</i>		
Application Equipment (Record)	<i>Devilbiss 64 Cap</i>		
Time Application Complete (Record)	<i>3:30</i>	<i>4:00pm</i>	

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *Can't cover edges because of
Alum. buildup around edge.
Alum. primer appears to cause gassing.
Top coat is blistering.*

Inspector: *R. Baggett*
Date: *4 VFS 194*
Report No.
Page *01*

Summary of Work Performed: *Aluminize Panels**Elite 8844 Top Coat*

S

U

ALUMINIZE

PRE-SURFACE PREPARATION

Condition of Edges, Weld Spatter, Etc.		✓	
Grease/Oil Removal (Record Solvent)	<i>Chlorothene</i>	✓	
Clean Dry Abrasive		✓	
Recycled Abrasive Test	<i>N/A</i>		
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)	<i>No Compressed Air</i>	✓	

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)	<i>SP-10</i>				
Profile (Record)	<i>RECORDED SCANNED</i>			✓	
Type and Size Abrasive (Record)					
Dust and Abrasive Removal	<i>AIR BLAST</i>			✓	
Magnetic Base Reading (Record)	<i>N/A</i>				

PASTICE UNCLE ✓

MIXING

Mfg./Product Name (Record)	<i>UTP EXOSAND 1020</i>		
Batch Numbers (Record)	<i>35293</i>		
Material Temperature/Potlife (Record)	<i>N/A</i>		
Correct Thinner/Amount (Record)	<i>N/A</i>		
Time of Mix (Record)	<i>N/A</i>		
Mix Ratio (Record)	<i>N/A</i>		
Induction Period (Record)	<i>1/1</i>		

APPLICATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Applicator's Name (Record)	<i>DONALD MURPHY</i>				
Surface Prep. to Appl. (Record Time)	<i>4/1/94</i>				
Compressed Air Cleanliness	<i>N/A</i>				
Time Application Began (Record)	<i>0730</i>				
Surrounding Air Cleanliness	<i>✓</i>			✓	
Recoat Times Observed (Record Actual)	<i>N/A</i>				
Intercoat Cleanliness	<i>N/A</i>				
Proper Pot Agitation	<i>N/A</i>				
Application Equipment (Record)	<i>UTP UNISPRAY JET</i>				
Time Application Complete (Record)	<i>0830 4/1/94</i>				

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	<i>See DFT Tables</i>		
Holiday Test (Record Method)	<i>N/A</i>		
Cure Test (Record Method)	<i>N/A</i>		

REMARKS: *Surface prep. noted & VHT. Some possible surface contamination noticeable in horizontal*

Inspector: *DAVID*
 Date: *4/1/94*
 Report No.
 Page *01*

ORIGINAL PAGE IS
OF POOR QUALITY

Panel/Tag #	Front	Front	Back
152 SS 591 3.2	PRESS-O-FILM™ No. <u>3.5</u> Mils. <u>3.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.8</u> Mils. <u>3.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.4</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
215 SS 596 3.2	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED SS 620 2.9	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>620 SS</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED A1 620 4.0	PRESS-O-FILM™ No. <u>620 A</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>620 A</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>620 A</u> Mils. <u>4.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED SS 624 2.5	PRESS-O-FILM™ No. <u>624 SS</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>624 SS</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>624 SS</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED A1 624 4.4	PRESS-O-FILM™ No. <u>624 A</u> Mils. <u>4.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>624 A</u> Mils. <u>4.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>624 A</u> Mils. <u>4.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED SS 628 3.0	PRESS-O-FILM™ No. <u>628 SS</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>628 SS</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>628 SS</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
COUPLED A1 628 4.3	PRESS-O-FILM™ No. <u>628 A</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>628 A</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>628 A</u> Mils. <u>4.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
	PRESS-O-FILM™ No. <u>C155F</u> Mils. <u>0.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>C155F</u> Mils. <u>1.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)	PRESS-O-FILM™ No. <u>C155B</u> Mils. <u>1.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 COARSE (8-2.0)
2118 A1 597 4.3	PRESS-O-FILM™ No. <u>A1597F</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1597F</u> Mils. <u>4.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1597B</u> Mils. <u>3.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
2115 A1 602 4.1	PRESS-O-FILM™ No. <u>A1602F</u> Mils. <u>5.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1602F</u> Mils. <u>4.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1602B</u> Mils. <u>4.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A1 607 4.1	PRESS-O-FILM™ No. <u>A1607F</u> Mils. <u>4.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1607F</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1607B</u> Mils. <u>4.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A1 612 4.1	PRESS-O-FILM™ No. <u>A1612F</u> Mils. <u>3.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1612F</u> Mils. <u>4.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1612B</u> Mils. <u>4.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
A1 617 3.8	PRESS-O-FILM™ No. <u>A1617F</u> Mils. <u>3.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1617F</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>A1617B</u> Mils. <u>4.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 575 3.1	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.5</u> Mils. <u>3.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 580 3.0	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
SS 586 3.4	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.6</u> Mils. <u>3.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

PRESS-O-FILM™
 No. 3.1
 Mils. 3.1
 Gage less 2.0
 Testex, Inc.
 Newark, DE 19715
X COARSE (1.5-4.5)

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PRESS-O-FILM™
 No. 3.1
 Mils. 3.1
 Gage less 2.0
 Testex, Inc.
 Newark, DE 19715
X COARSE (1.5-4.5)

Panel/Tag #	Front	Front	Back
580	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
596	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
595	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.1</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
586	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.6</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
591	PRESS-O-FILM™ No. <u>3.1</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
597	PRESS-O-FILM™ No. <u>3.8</u> Mils. <u>3.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
617	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.2</u> Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
612	PRESS-O-FILM™ No. <u>3.0</u> Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.4</u> Mils. <u>3.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
607	PRESS-O-FILM™ No. <u>3.3</u> Mils. <u>3.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>3.1</u> Mils. <u>3.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

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COST

Candidate Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mld)	Vol. Solids %	Abrasive used	Appl Equip
Aluminum Metalized Thermal System							
Elite Coatings							
Elite 8844	SP-5	2	2	4 to 5	70%		B,R,C,A
amine-epoxy							

Panel Numbers SS= 575-596 Alum= 597-610 Coupled= 619-632 CPVC= 633-650

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 575		2.6	6.6	7.2	6.7	7.3	6.8	#DIV/0!
SS 576		2.6	7.4	8.0	7.1	8.3	7.4	#DIV/0!
SS 577		5.6	5.9	6.2	6.2	6.5	6.0	#DIV/0!
SS 578		8.7	7.7	9.8	7.7	9.0	7.6	#DIV/0!
SS 579		6.0	6.5	7.2	6.2	6.8	6.5	#DIV/0!
SS 580		6.0	5.8	5.9	6.4	5.9	5.9	#DIV/0!
SS 581		7.2	9.5	7.0	9.5	7.3	9.8	#DIV/0!
SS 582		5.9	5.7	6.9	5.6	7.3	7.0	#DIV/0!
SS 583		7.7	6.3	7.8	6.7	8.1	6.5	#DIV/0!
SS 584		6.8	7.5	6.6	8.7	8.1	6.8.7	#DIV/0!
SS 585		7.4	7.6	7.4	7.9	7.4	7.6	#DIV/0!
SS 586		6.3	7.3	6.2	7.0	6.9	7.5	#DIV/0!
SS 587		8.1	6.4	7.9	6.1	8.1	6.2	#DIV/0!
SS 588		6.8	5.8	6.9	6.4	7.1	6.1	#DIV/0!
SS 589		7.9	8.5	8.5	7.9	8.3	8.9	#DIV/0!
SS 590		6.6	7.3	6.8	7.8	7.2	8.2	#DIV/0!
SS 591		8.0	6.8	8.1	7.1	8.3	6.5	#DIV/0!
SS 592	✓	7.6	7.5	7.3	7.2	7.7	7.3	#DIV/0!
SS 593	✓	7.9	8.0	8.0	8.1	7.9	8.1	#DIV/0!
SS 594	✓	9.3	9.5	10.0	9.8	9.7	9.2	#DIV/0!
SS 595	✓	7.0	6.2	7.0	6.0	7.2	6.3	#DIV/0!
SS 596	✓	7.8	6.1	7.6	6.2	7.4	5.9	#DIV/0!
ALUM 597		11.1	11.5	11.8	11.5	11.4	11.5	#DIV/0!
ALUM 598		9.7	10.7	9.6	10.6	9.5	10.9	#DIV/0!
ALUM 599		8.2	7.9	8.0	8.0	8.1	7.7	#DIV/0!
ALUM 600		10.1	9.3	9.4	9.6	10.1	9.1	#DIV/0!
ALUM 601		9.8	8.5	9.6	8.7	9.9	8.6	#DIV/0!
ALUM 602		10.3	10.6	10.3	10.7	10.8	10.3	#DIV/0!
ALUM 603		8.9	9.9	8.7	9.0	8.4	8.9	#DIV/0!
ALUM 604		8.9	10.3	8.7	9.3	8.2	10.1	#DIV/0!
ALUM 605		9.0	11.7	8.9	11.9	8.9	11.3	#DIV/0!

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Take
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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM 606		8.6	9.1	8.9	9.3	8.9	9.4	#DIV/0!
ALUM 607		10.9	8.7	10.7	8.4	10.9	8.5	#DIV/0!
ALUM 608		10.5	9.1	11.2	9.2	10.7	9.8	#DIV/0!
ALUM 609		10.8	9.1	11.0	9.0	10.7	8.8	#DIV/0!
ALUM 610		9.4	10.6	9.4	11.0	9.7	11.0	#DIV/0!
ALUM 611		10.1	9.4	10.6	9.9	10.6	9.6	#DIV/0!
ALUM 612		9.1	12.6	8.8	12.8	8.5	12.7	#DIV/0!
ALUM 613		8.5 9.3	9.0 10.9	8.7	9.5	8.5	9.2	#DIV/0!
ALUM 614		9.6	11.1	9.6	11.1	9.4	11.1	4.8
ALUM 615		10.5	12.6	10.8	10.3	11.8	10.4	#DIV/0!
ALUM 616		8.1	12.3	8.2	12.4	7.9	12.3	#DIV/0!
ALUM 617		9.3	12.2	9.1	12.5	9.2	12.0	#DIV/0!
ALUM 618		12.1	11.2	11.7	11.2	12.7	12.5	#DIV/0!
SS CPL 619		8.8	9.2	8.7	8.5	8.4	9.3	#DIV/0!
AL CPL 619		7.6	8.9	8.2	6.4	8.7	7.8	#DIV/0!
SS CPL 620		9.1	7.2	9.1	8.3	9.0	7.3	#DIV/0!
AL CPL 620		6.4	10.0	6.7	9.3	6.3	10.1	#DIV/0!
SS CPL 621		6.9	9.8	6.8	8.7	6.8	8.6	#DIV/0!
AL CPL 621		7.4	9.2	8.8	8.7	7.8	8.9	#DIV/0!
SS CPL 622		7.3	8.0	8.3	8.8	7.6	8.2	#DIV/0!
AL CPL 622		9.4	10.1	9.2	10.1	8.8	9.1	#DIV/0!
SS CPL 623		9.9	9.2	10.4	9.4	10.1	9.5	#DIV/0!
AL CPL 623		10.1	10.2	8.9	10.1	8.6	10.3	#DIV/0!
SS CPL 624		7.5	9.3	8.4	11.2	7.0	9.5	#DIV/0!
AL CPL 624		7.1	9.5	8.1	9.8	8.7	9.5	#DIV/0!
SS CPL 625		9.2	9.9	8.3	10.9	9.0	11.2	#DIV/0!
AL CPL 625		9.6	10.5	10.2	12.3	10.0	8.4	#DIV/0!
SS CPL 626		7.4	7.3	6.3	7.3	7.6	8.3	#DIV/0!
AL CPL 626		6.9	9.7	7.9	9.3	8.4	10.7	#DIV/0!
SS CPL 627		8.0	8.3	7.1	8.1	8.0	8.4	#DIV/0!
AL CPL 627		8.3 8.5	8.0	8.8	8.7 7.9	8.5	8.2	#DIV/0!
SS CPL 628		7.2 7.9	10.2 6.3	6.9	9.9	6.4	9.5	#DIV/0!
AL CPL 628		5.7 7.8	8.1 10.0	7.5	11.6	7.0	10.7	#DIV/0!
SS CPL 629		7.6	8.6	6.9	8.0	7.8	8.6	#DIV/0!
AL CPL 629		7.9	8.4	8.2	10.1	8.5	8.8	#DIV/0!

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL 630		8.8	7.6	8.2	10.8	8.8	8.2	#DIV/0!
AL CPL 630		11.2	9.3	10.1	9.4	10.0	9.3	#DIV/0!
SS CPL 631		10.8	9.2	10.7	9.4	11.7	8.5	#DIV/0!
AL CPL 631		10.8	10.2	9.5	11.0	9.3	10.5	#DIV/0!
SS CPL 632		7.6	9.0	9.1	8.2	9.5	8.7	#DIV/0!
AL CPL 632		8.7	9.7	8.5	9.7	8.2	9.5	#DIV/0!
CPVC 633								#DIV/0!
CPVC 634								#DIV/0!
CPVC 635								#DIV/0!
CPVC 636								#DIV/0!
CPVC 637								#DIV/0!
CPVC 638								#DIV/0!
CPVC 639								#DIV/0!
CPVC 640								#DIV/0!
CPVC 641								#DIV/0!
CPVC 642								#DIV/0!
CPVC 643								#DIV/0!
CPVC 644								#DIV/0!
CPVC 645								#DIV/0!
CPVC 646								#DIV/0!
CPVC 647								#DIV/0!
CPVC 648								#DIV/0!
CPVC 649								#DIV/0!
CPVC 650								#DIV/0!
Adh 651		20.5	18.8	19.1	19.2	18.8	19.8	#DIV/0!
Adh 652		19.0	16.2	19.4	15.7	18.9	15.1	#DIV/0!
Tabor 653		14.6	13.8	15.2	14.5	14.4	14.4	#DIV/0!
Tabor 654		17.4	13.7	17.5	13.4	18.1	13.5	#DIV/0!
Impact 655	13.9	16.7	13.9	16.9	13.9	17.2		#DIV/0!
Impact 656	15.0	16.4	16.2	16.8	15.2	16.6		#DIV/0!

System #9 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Wisconsin Prot. Ctg's Plasite 7122 epoxy phenolic	SP-5 (employed by NASA)	2.5	2	6 to 7 multi-pass	56%	Alum. Oxide (24)	B,C,A

Panel Numbers SS=657-67um=679-700 Coupled=701-714 CPVC=715-732

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 657		14.9	15.7	15	15.7	14.9	15.6	15.3
SS 658		16.1	17.6	16.1	17.6	16.2	17.8	16.9
SS 659		15.3	16.2	15.3	16.1	15.2	16.4	15.8
SS 660		16.1	14.8	16.7	14.9	16.9	14.7	15.7
SS 661		16.2	17.1	16.5	17.2	16.1	17.4	16.8
SS 662		15.3	16.1	15.1	15.9	15.2	15.9	15.6
SS 663		16.2	14.3	16.2	14.3	16.2	14.5	15.3
SS 664		14.3	15.8	14.7	15.8	14.4	15.8	15.1
SS 665		14.6	14.5	14.5	14.8	14.4	14.6	14.6
SS 666		15.6	15.4	15.9	15.6	15.8	15.6	15.7
SS 667		16.4	17.7	16.3	17.4	16.5	17.4	17.0
SS 668		13.8	14.7	13.7	14.7	13.9	14.6	14.2
SS 669		16.5	15.2	16.4	15.2	16.7	15.1	15.9
SS 670		14.9	13.1	14.8	12.9	14.7	13.1	13.9
SS 671		15.4	16.3	15.6	16.4	15.7	16.6	16.0
SS 672		14.7	15.2	14.9	15	15.1	14.8	15.0
SS 673		16.7	14.1	16.5	14	16.6	13.9	15.3
SS 674		14.2	12.5	14.1	12.7	14.3	12.3	13.4
SS 675		14.4	14.9	14.4	14.7	14.1	14.5	14.5
SS 676		13.1	12.9	13	13.1	13	12.8	13.0
SS 677		15.5	13.7	15.4	13.6	15.6	13.7	14.6
SS 678		16	14.8	16.1	14.9	16.2	15.1	15.5
ALUM 679		13.4	14.2	13.4	14.1	13.5	14.1	13.8
ALUM 680		13	13.2	13.1	13.2	13.1	13	13.1
ALUM 681		15.2	15.1	14.8	14.9	14.8	15	15.0
ALUM 682		14.9	16.7	14.8	16.8	14.5	16.7	15.7
ALUM 683		14.9	15.4	15	15.7	14.9	15.5	15.2
ALUM 684		12.1	12.2	12.2	12.4	11.9	12.4	12.2
ALUM 685		12.8	13.8	13.2	13.3	13.3	13.2	13.3
ALUM 686		15.5	15.5	15.5	16	15.5	15.8	15.6
ALUM 687		14.7	14.2	14.5	14.1	14.7	14	14.4
ALUM 688		12.5	12.6	12.4	12.3	12.4	12.5	12.5
ALUM 689		11.3	14.2	11.1	14.2	11.1	14.3	12.7
ALUM 690		13.2	13.8	13.1	13.7	13.1	13.7	13.4
ALUM 691		14.1	14.6	14.2	14.7	14	14.4	14.3
ALUM 692		12.9	13.8	12.9	13.5	12.7	13.5	13.2
ALUM 693		13.8	12	13.6	12.6	13.8	12.6	13.1
ALUM 694		14.5	10.8	14.5	10.4	14.5	10.8	12.6
ALUM 695		11.7	14.7	11.6	14.9	11.8	15	13.3
ALUM 696		13.5	13.3	13.6	13.2	13.4	13.2	13.4
ALUM 697		13.8	13.9	13.9	13.9	13.9	13.9	13.9
ALUM 698		14.2	14.6	14.3	14.6	14.5	14.4	14.4
ALUM 699		13.7	13	13.8	12.9	13.7	13	13.4
ALUM 700		14.1	14.6	14.2	14.5	14.2	14.4	14.3
SS CPL 701		12.6	14.1	13.1	13.9	13.1	14.2	13.5

AL CPL	701		12.9	13.1	12.7	12.7	12.5	13.1	12.8
SS CPL	702		14.5	13.2	14.8	13.1	14.5	13.3	13.9
AL CPL	702		4.3	4.9	4.4	4.5	4.3	4.7	4.5
SS CPL	703		13.7	13.5	13.4	13.8	13.4	13.8	13.6
AL CPL	703		14.3	15.4	14.3	15.4	14.5	15.2	14.9
SS CPL	704		14.4	14.4	14.3	14.3	14.4	14.4	14.4
AL CPL	704		15.4	14.2	15.6	14.3	15.4	14.7	14.9
SS CPL	705		12.1	14.1	12.5	14.6	11.9	14.5	13.3
AL CPL	705		13.6	16.3	13.6	16.4	13.6	16	14.9
SS CPL	706		13.4	13.6	13.4	14.1	13.3	14.2	13.7
AL CPL	706		13.1	15.9	13	15.9	12.9	15.9	14.5
SS CPL	707		12.1	12.6	12.2	13	12.5	12.8	12.5
AL CPL	707		14.4	16	14	15.6	14	15.5	14.9
SS CPL	708		13.7	15.7	14.1	15.7	14.1	15.6	14.8
AL CPL	708		14.8	15.2	14.9	15.1	15.1	15.4	15.1
SS CPL	709		12.8	13.7	12.5	13.4	12.8	13.8	13.2
AL CPL	709		13.7	15.1	13.6	14.8	13.9		14.2
SS CPL	710		12.4	16.1	13	14.9	12.5	14.9	14.0
AL CPL	710		13.8	13.6	14	13.5	13.9	13.7	13.8
SS CPL	711		17.6	13.6	17.9	13.5	17.6	13.8	15.7
AL CPL	711		13.6	4.5	3.8	4.8	3.8	4.5	5.8
SS CPL	712		14.6	15.8	14.5	16	14.4	16.1	15.2
AL CPL	712		14.5	14.3	14.2	14.4	14.2	14.3	14.3
SS CPL	713		13	14.2	13.3	14.3	13.3	14.4	13.8
AL CPL	713		13.3	13.1	13	13	13	12.8	13.0
SS CPL	714		13.9	14.2	14	14.2	13.8	14.3	14.1
AL CPL	714		4.5	5.6	4.6	5.3	4.5	5.2	5.0
CPVC	715		163	165	35	37	36	18.0	18.0
CPVC	716		166	163	38	35	36.5	18.3	18.3
CPVC	717		159	157	31	29	30	15.0	15.0
CPVC	718		154	161	26	33	29.5	14.8	14.8
CPVC	719		159	154	31	26	28.5	14.3	14.3
CPVC	720		157	156	29	28	28.5	14.3	14.3
CPVC	721		157	162	29	34	31.5	15.8	15.8
CPVC	722		156	159	28	31	29.5	14.8	14.8
CPVC	723		160	166	32	38	35	17.5	17.5
CPVC	724		158	161	30	33	31.5	15.8	15.8
CPVC	725		159	160	31	32	31.5	15.8	15.8
CPVC	726		159	161	31	33	32	16.0	16.0
CPVC	727		161	154	33	26	29.5	14.8	14.8
CPVC	728		169	169	41	41	41	20.5	20.5
CPVC	729		161	154	33	26	29.5	14.8	14.8
CPVC	730		160	157	32	29	30.5	15.3	15.3
CPVC	731		161	158	33	30	31.5	15.8	15.8
CPVC	732		155	163	27	35	31	15.5	15.5
Adh	733		19.7	20	18.4	20.1	18.7	20.2	9.4
Adh	734		17.9	19.1	18	19	18.1	19.1	9.1
Tabor	735		14.6	18	14.1	18	13.8	17.7	6.9
Tabor	736		14.7	17.8	15.7	17.9	15.7	18	7.9
Impact	737		15.4	24.3	14.8	24.6	15.2	24.5	7.6
Impact	738		14.8	19	14.9	18.7	14.7	18.9	7.4



PLASITE 7122 HI-RESISTANT PROTECTIVE COATING

TYPE: A cross linked epoxy-phenolic cured with an alkaline curing agent and formulated with particular attention to wide chemical resistance and ease of handling.

INTENDED USE: As a tank lining and for industrial maintenance. May be applied to metal, concrete and wood. (Refer to ZONE OF USAGE below.)

FOR INDUSTRIAL USE ONLY!

GOVERNMENT AGENCY ACCEPTANCE: Meets the requirements of the U. S. Food and Drug Administration, 21 CFR 175.307 (NOTE: The color "Green" is not suitable for food service. Special colors may not meet FDA requirements; consult PLASITE Technical Service Department).

PLASITE 7122 White, Lt. Gray and Lt. Blue have been accepted by the U. S. Department of Agriculture for use in direct food contact areas. PLASITE 7122 White, Lt. Gray and Lt. Blue have been accepted by the U. S. Environmental Protection Agency for surfaces which contact potable water.

CHEMICAL RESISTANCE: Excellent chemical resistance to a wide range of acids, alkalis, solvents and water solutions. Refer to CHEMICAL RESISTANCE on Page 2.

TEMPERATURE RESISTANCE: Dry film basis is 400°F for short periods. Continuous immersion temperatures depend on particular reagent.

SURFACE PREPARATION: Steel surfaces shall be prepared by blasting as required by ZONE OF USAGE. Refer to PRIMERS on Page 2.

APPLICATION: PLASITE 7122H is formulated for standard production spray equipment. 7122B is formulated for brush and roller application and should be force cured for immersion service. Refer to Page 4 for details on APPLICATION PROCEDURE.

COLORS: Green; Light gray; Medium gray; Black; White; Light blue; Tile red. Special colors are available, but may not be suitable for food service. Consult PLASITE Technical Service Department.

FILM THICKNESS PER COAT: A 6 to 7 mil film is produced in one multi-pass spray coat. A 2 to 4 mil film may be produced by one 'flow on' brush coat.

COVERAGE: 898 mil ft²/gallon \pm 4% theoretical. For estimating purposes, 50 ft²/gallon will produce a 12 to 15 mil DFT film (20% loss included). Two multi-pass spray coats will produce the 12 to 15 mil DFT film recommended for immersion service.

DRYING TIME: Surface will normally be tack free in 2 to 3 hours at 70°F.

CURING TIME: 5 days at 90°F or 7 days at 70°F. Refer to Page 2 for force curing.

PHYSICAL SPECIFICATIONS

PIGMENTS: Titanium dioxide, inerts and tinting colors.

SOLIDS: 67% by weight; 56% \pm 4% by volume, depending on color and pigmentation.

POT LIFE: Approximately 24 hours at 70°F.

SHELF LIFE: 24 months at 70°F. Material in stock should be turned upside down every 3 months.

SPRAY VISCOSITY: 28 \pm 7 seconds - Ford Cup #4 depending on color.

SHIPPING WT.: Approximately 12 lbs./gallon.

ELECTRICAL RESISTANCE: 5.5×10^{12} ohm-cm Volume Resistivity - ASTM D-257-66.

***ABRASIVE RESISTANCE:** 47 milligrams average loss 1000 cycles TABER CS-17 Wheel - 1000 Gr. Wt., Lt. gray color.

***HARDNESS:** Konig Pendulum Hardness of 136 seconds; (Glass Standard = 250 seconds); ASTM METHOD D4366-84.

THERMAL SHOCK: Unaffected 5 cycles -70°F to +200°F.

GLOSS: 86 at 60°.

***NOTE:** Above tests were conducted on film cured at 150°F.

VOLATILE ORGANIC COMPOUNDS CONTENT

COATING AS SUPPLIED
(ASTM METHOD D2369)

THINNED 10% BY VOLUME
WITH PLASITE 71 THINNER

Color	Lbs./Gal.	Grams/Liter	*Lbs./Gal.	*Grams/Liter
Lt. Gray	3.09 \pm 2%	370 \pm 2%	3.43 \pm 2%	410 \pm 2%

NOTE: VOC content varies between colors. Contact PLASITE Technical Service Department for VOC of specific colors.

*Determined theoretically by using ASTM Method test results.

ZONE OF USAGE

A ZONE: Includes immersion service for process, transportation and storage vessels, as well as exteriors of high temperature equipment, sumps, sewers, exhaust ducts, concrete bases and floors or other surfaces subject to combinations of high temperature and heavy spills of corrosive chemicals. SSPC-SP5 blast and a film thickness of 12 to 15 mils required.

B ZONE: Interior process areas where structural steel, floors, equipment, ducts and other surfaces are subject to attack by strong fumes, occasional spills and splashes at intermediate temperatures, SSPC-SP5 or SSPC-SP10 blast and a film thickness of 12 to 15 mils required. With surface preparation as indicated, the finish coating is considered self-priming although, if desired, a heavy duty primer may be incorporated as part of the system.

C ZONE: Interior and exterior area surfaces subject to fumes of fairly high concentration at ambient temperatures. Heavy or medium duty primer over SSPC-SP6 or SSPC-SP7 blast and a total film thickness, (primer and topcoat) of 7 to 10 mils required.

D ZONE: Process plant exterior subject to chemical atmosphere and weathering. Medium duty primer over SSPC-SP7 or SSPC-SP3 surface preparation and a total film thickness, (primer and topcoat) of 6 to 8 mils required.

F.B'82

WISCONSIN PROTECTIVE COATINGS CORP.

614 Elizabeth Street

P.O. Box 8147

Green Bay, WI 54308-8147

414-437-6551

Represented by:

Chandelle Company

1050 N. Post Oak Road # 210
Houston, Texas 77055

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film thickness of 12 to 15 mils. The panels are one-half immersed in the solution at temperatures of 100° to 200° F for a period of six months with no effect on the coating.

ACIDS

50% Sulfuric*
50% Oxalic*
30% Phosphoric*
25% Boric*
50% Citric*

ALKALIES

50% Sodium Hydroxide
Magnesium Hydroxide
10% Potassium Hydroxide
Calcium Hydroxide
50% Sodium Carbonate
Tri-Sodium Phosphate

SOLVENTS

Alcohol
Ethyl, Iso-Propyl,
Butyl, Decyl
Gasoline
Kerosene
Iso-Propyl Acetate
Naphtha

MISCELLANEOUS

Calcium Chloride
Latex Rubber
Linseed Oil
Brine
Ferric Chloride*
Ammonium Nitrate
Sour-Crude Oil — 180°F

*NOTE: Although the chemical tests indicated may show that PLASITE 7122 is unaffected by immersion as listed, it is not meant to imply an express guarantee in actual service. The service is dependent upon proper application and actual operating conditions and it is generally recommended that users confirm adaptability of the product for a specific use by their own tests.

PLASITE 7122 is classified as a relatively thin film coating and should not be used for total and continuous immersion in certain chemicals such as those acids referred to under CHEMICAL RESISTANCE which have extremely high corrosion rate to mild steel and other substrates. Use in such chemical exposure should be confined to fumes and spills.

THINNERS

The following thinners are recommended:

PLASITE 71 THINNER — is a medium fast thinner to be used under most conditions.

PLASITE 69 THINNER — recommended for airless or conventional spray. A special blend of fast evaporating solvents and containing no hydrocarbons.

It will always be necessary to thin the coating. The applicator must make exact thinner adjustments based on his equipment and air and surface temperatures. The following thinning guidelines are approximate:

Normal application temperatures and conditions will require the addition of approximately 10% thinner by volume with approximately 5% additional thinner added for each 5° of increased temperature.

It is recommended that the amount of thinner included on each order amount to approximately 20% of the coating order.

PRIMERS

Primers of the inhibitive type must be used when steel surfaces are not blasted to white metal and when finish coatings are below 8 mils in thickness. These primers may be applied by either brush or spray application:

PLASITE 7100 ANTI-CORROSIVE PRIMER described in Bulletin 7100-AC is an epoxy-phenolic catalyzed primer of heavy duty type applicable for B, C and D Zones.

PLASITE 7103 HEAVY DUTY PRIMER described in Bulletin 7103 is an epoxy metal primer with superior bond and water resistance, as well as chemical resistance, for B, C and D Zones.

NOTE: The primers listed above are NOT recommended for food or potable water service, or any service where FDA compliance is required.

CURING

1. Normally polymerization and curing will take place in 5 days at 90°F or 7 days at 70°F. This coating should not be applied when air temperature or temperature of surface to be coated is below 50°F. Within 24 hours after coating is applied, a minimum substrate temperature of 70°F is required for proper polymerization. Force curing is required for the PLASITE 7122B (brush formulation) when used in immersion service. 7122 should be force cured for all taste sensitive immersion service.
2. Force curing at elevated temperature does increase resistance to certain exposures; therefore, when exposure is severe, force curing is recommended to obtain maximum resistance.
3. Listed below are a few curing schedules that may be used for time and work planning. Prior to raising the metal to the force curing temperature, it is necessary that an air dry time of 2 to 5 hours at temperatures from 70° to 100°F be allowed. After the air dry period has elapsed, the temperature should be raised by approximately 30°F each 30 minutes until the desired force curing temperatures are reached.

METAL TEMPERATURE

°F	°C
130	54.4
140	60.0
150	65.5
160	71.1

CURING TIME

18 Hours
10 Hours
6 Hours
4½ Hours

METAL TEMPERATURE

°F	°C
170	76.6
180	82.2
190	87.7
210	93.3

CURING TIME

3½ Hours
2½ Hours
2 Hours
1½ Hours

4. Final cure may be checked by exposing coated surface to MIBK for ten minutes. If no dissolving and only minor softening of film occurs, the curing can be considered complete. The film should reharden after exposure if cured.

- High Temperature & Immersion Service (1 & 2 Zones are described under ZONE OF USAGE).
1. All sharp edges shall be ground to produce a radius and all imperfections, such as, skip welds, delaminations, scabs, slivers and slag shall be corrected prior to abrasive blasting. Skip welds shall be welded solid.
 2. Degrease surface prior to sandblasting. Organic solvents, alkaline solutions, steam, hot water with detergents or other systems that will completely remove dirt, oil, grease etc. may be used. Used tanks may require additional decontamination.
 3. The surface shall be blasted to an SSPC-SP5 or NACE No. 1 white metal surface using a Venturi blast nozzle supplied with 80 to 100 psi. An anchor pattern or "tooth" in the metal shall correspond to approximately 20 to 25% of the total film thickness of the coating.
 4. Contaminated grit shall not be used for the finish work.
 5. The blasting media used shall be a natural abrasive, or steel grit, or slag grit (similar or equal to BLACK BEAUTY®). These abrasives shall be sharp with a hard-cutting surface, properly graded, dry and of best quality. The media shall be of proper size to obtain the specified anchor pattern and shall be free of objectionable contaminants.
 6. The anchor pattern shall be sharp and no evidence of a polished surface is allowed.
 7. Remove all traces of grit and dust with a vacuum cleaner or by brushing. Care must be taken to avoid contaminating the surface with fingerprints or from detrimental material on the workers' clothes.
 8. The surface temperature shall be maintained at a minimum of 5° above the dew point to prevent oxidation of the surface. The coating shall be applied within the same day that the surface has been prepared.

Service in Corrosive Atmosphere (B, C and D Zones as described under ZONE OF USAGE.)

1. Degrease surface as described in Item 2 under A & B Zones.
2. Remove all loose mill scale, rust scale and old paint scale by one of the following methods:
 - a. Near white metal blast cleaning — (B Zone) SSPC-SP10 or NACE No. 2.
 - b. Commercial blast cleaning — (C Zones) SSPC-SP6 or NACE No. 3.
 - c. Brush-off blast cleaning — (C & D Zones) SSPC-SP7 or NACE No. 4.
 - d. Power tool cleaning — (D Zone) SSPC-SP3.

When utilized, inhibitive primer should be applied as soon as possible after surface preparation.

D Zone application surface preparation as in above Paragraph 2 (d) must result in a relatively rough surface. If the steel is new and this type of surface preparation does not leave a reasonably rough surface on the steel, then the heavy film system is not recommended.

NOTE: The above specification numbers are from Steel Structure Painting Council Surface Preparation Specifications, 4400 Fifth Ave., Pittsburgh, PA 15213 and National Association of Corrosion Engineers, P.O. Box 218340, Houston, TX 77218.

CONCRETE

A ZONE: All concrete surfaces require whip blasting for immersion service. Fully cured concrete must be blasted to provide a hard, firm and clean surface for coating. All concrete surfaces must be filled and sealed with PLASITE 9028M1 or PLASITE 9028M2, applied in accordance with PLASITE Bulletin 9028. All surface imperfections, "bug holes," etc. must be completely repaired before application of PLASITE 7122.

PLASITE 9028M1 and 9028M2 are NOT recommended for food or potable water service. (When coating system requires food or potable water service, or any service where FDA acceptance is required, refer to PLASITE Bulletin 9029 Concrete Filler-Sealer.)

B ZONE: Severity of expected service will dictate minimum concrete surface preparation. Severe service (strong fumes, spillage, etc.) will probably require A Zone surface preparation and PLASITE 9028M1 or PLASITE 9028M2 filling and sealing before application of PLASITE 7122.

GALVANIZED SURFACE

The surface shall be clean and grease free and properly etched with a standard solution such as GALVAPREP® 5 (as produced by Parker & Amchem, Madison Heights, MI, telephone 800/521-1355) or a phosphating solution. After the surface is properly etched, it should be thoroughly rinsed with water and thoroughly dried prior to the coating application. No inhibitive primer is required providing the galvanized surface is continuous.

ALUMINUM

Surface shall be clean and grease free with a blast produced anchor pattern or "tooth" as described earlier under "STEEL". In addition, the blasted surface shall be given a chemical treatment such as:

ALODINE® 1200S available from
Parker & Amchem
32100 Stephenson Highway
Madison Heights, MI 48071
(800) 521-1355

IRIDITE® 14-2 produced by
Allied-Kelite Division of
Witco Corporation
2701 Lake Street
Melrose Park, IL 60160
(800) 323-9784

OAKITE® CRYSCOAT 747LTS Plus
OAKITE® CRYSCOAT ULTRASEAL
Produced by Oakite Products
50 Valley Road
Berkeley Heights, NJ 07922
(908) 464-6900
Canada: (416) 791-1628

For immersion, blasting with sharp grit followed by the chemical surface treatment is required.

NOTE: On metallic surfaces prepared only by chemical etching, the total coating film thickness applied should be restricted to only half the film normally applied to blasted surfaces. This reduced film thickness should be considered during selection of the coating for the service and the type of surface preparation performed.

WOOD, TRANSITE, AND SIMILAR SURFACES

Normally these materials need no surface treatment provided they are free of grease, oil and dirt and they are dry. It is generally recommended that the first coat be diluted one part of recommended PLASITE Thinner to one part of material and brush applied.

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1. All spray equipment should be thoroughly cleaned after use. In particular, should be free of old paint film and other contaminants.
2. Use standard production-type spray guns:

GUN	FLUID	AIR
DeVilbiss JGA-502	E	704
Binks #18	66-SS	63-PB
Graco P800	04	02
3. When airless spray equipment is used the recommended liquid pressure is 1500 to 1800 psi with the tip size from .013" to .021". Thinning requirements are more than for conventional spray.

BRUSH APPLICATION

Use a high quality brush.

MIXING

The catalyst is in a separate container and measured for the coating unit supplied. Thoroughly mix the pigments. After the pigment and liquid is thoroughly mixed, add the measured liquid catalyst slowly and mix completely with the coating. The coating should stand approximately 30 minutes after the catalyst has been thoroughly mixed.

APPLICATION PROCEDURE

1. Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 10 to 15 lbs. of pot pressure. Adjust spray gun first by opening liquid valve and then adjusting air valve to give an 8" to 12" wide spray pattern with best possible atomization.
2. Apply a "mist" bonding pass.
3. Allow to dry approximately one minute but not long enough to allow film to completely dry.
4. Apply crisscross multi-passes, moving gun at fairly rapid rate, maintaining a wet appearing film. Observe the coating surface and, when it appears to be flowing together, you will have an average 4 to 5 mils wet film. By allowing the solvents to flash-off for a few minutes, several more fast multi-passes may be applied until you have a film thickness of approximately 5 to 7 mils (approximately 10 to 12 wet mils).
5. Overcoat Time will vary both with temperature and ventilation. Will require from 8 to 12 hours at 70°F for enclosed spaces. Less time required for exteriors. Remove all overspray by dry brushing or scraping if required.

6. By repeating Step No. 4 a homogeneous film of 12 to 15 mils is obtained.
7. Equipment must be thoroughly cleaned immediately after use with PLASITE thinner to prevent the setting of the coating.

NOTE: Prior to spray application all irregular steel areas, including weld seams should be brush coated with PLASITE 7122 thinned a minimum of 30% by volume.

BRUSH APPLICATION

1. Apply a very light crisscross brush coat.
2. Allow to dry for approximately 5 minutes.
3. Apply a heavy coat using crisscross brush pattern. "Flow" the coating on rather than try to "brush out."
4. Allow to dry tack free.
5. Repeat Steps 3 and 4 until sufficient film thickness is obtained. Normally a film thickness of 2½ to 3 mils can be obtained per coat by this method.

INSPECTION

Refer to PLASITE Bulletin PA-3, Section 3, for inspection requirements.

PLASITE 7122 SPECIAL FORMULATIONS

7122 HAR: Formulated for added abrasion resistance. Refer to PLASITE Technical Bulletin 7122 HAR.

7122 TFE: Formulated with fluorocarbon pigments for excellent release and mass flow properties. Same chemical resistance, coverage and application as for standard PLASITE 7122.

This Bulletin provides standard information on the coating and application procedure. Since varying conditions may not be covered, consult with your local sales representative or PLASITE Technical Service Department for further information.

METRIC COMPARISONS

1 mil = .001" = 25.4 microns

1 U.S. gallon = 3.785 liters

1 sq. ft. x 0.0929 = sq. meters

$$^{\circ}\text{C} = \frac{5(^{\circ}\text{F} - 32)}{9}$$

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We warrant our product to be free of defects in material and workmanship and to be in accordance with our company quality control standards. All data, statements and recommendations are based upon information which we believe to be reliable. However, without any representation or warranty of accuracy, we are making this recommendation of all products. Our products are sold on the condition that the user himself will evaluate them in view of his own requirements. We disclaim any liability for any purpose before, during or after the use of our products or processes and not to be construed as a recommendation for the use of our products in any situation. Any application, use or modification of our products shall be limited to replacement of material only. This does not include, for example, the repair or replacement of the coating product loss or any other expense incidental to the structure or operation of the plant and equipment where this coating is applied.

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DATE OF PREPARATION- 1/11/94

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EMERGENCY TELEPHONE NO. DAY: (414) 437-6561 NIGHT: (800) 424-9300
 INFORMATION TELEPHONE NO. DAY: (414) 437-6561 NIGHT:

SECTION I -- PRODUCT IDENTIFICATION

MANUFACTURER'S CODE IDENTIFICATION: 7122H800H-02 LAST MOD. DATE : 12/23/86
 PRODUCT CLASS: HI-RESISTANT EPOXY-PHENOLIC AMINE COATING
 TRADE NAME: PLASITE 7122-H WHITE

REF# 7122H800A-01 7122H000B-01

SECTION II -- INGREDIENTS/HAZARDOUS INGREDIENTS

INGREDIENT	CAS#	% BY WEIGHT	TLV MG/M3	PEL MG/M3	EHS	SEC 313
METHYL ISO-BUTYL KETONE	*108-10-1	* 1%-5%	* 205.000*	410.000*		Yes
4-METHYL-2-PENTANONE						
TOLUENE, METHYLBENZENE*	*108-88-3	* 1%-5%	* 188.000*	375.000*		Yes
ISOBUTYL ACETATE	*110-19-0	* 1%-5%	* 713.000*	700.000*		
3-METHYLPROPYL ETHANOATE						
TITANIUM DIOXIDE	*13463-67-7	* 10%-30%	* 10.000*	15.000*		
SILICA	*7631-86-9	* 5%-10%	* .100*	.100*		
KAOLIN, SILICATES	*1332-58-7	* 5%-10%	* 2.000*	15.000*		
METHYL ETHYL KETONE	*78-93-3	* 10%-30%	* 590.000*	590.000*		Yes
2-BUTANONE						
POLYAMINE/ETHYLENEAMINES	*##	* 1%-5%	* 4.200*	4.000*		
BISPHENOL-A EPOXY RESIN	*25036-25-3	* 30%-70%	* N/A	* N/A	*	
ETHANOL	*64-17-5	* 1%-5%	* 1880.000*	1900.000*		
ETHYL ALCOHOL						
ISOPROPYL ALCOHOL	*67-63-0	* 0%-1%	* 985.000*	980.000*		Yes
2-PROPANOL						
METHYL ALCOHOL, METHANOL	*67-56-1	* 0%-1%	* 262.000*	260.000*		Yes
UREA-FORMALDEHYDE RESIN*	*N/A	* 0%-1%	* 1.500*	N/A	* Yes	Yes
NBUTYLALCOHOL/BUTANOL @	*71-36-3	* 0%-1%	* 152.000*	300.000*		Yes
XYLENE, DIMETHYL BENZENE	*1330-20-7	* 0%-1%	* 434.000*	435.000*		Yes
FORMALDEHYDE*	*50-00-0	* 0%-1%	* 1.190*	.890*	Yes	Yes

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MANUFACTURER'S CODE: 7122H800H-02 DATE OF PREPARATION- 1/11/9

AS: "Extremely Hazardous Substance" under SARA Title III found in the Federal Register of April 22, 1987, pp. 13397-13410.

SEC. 313: "Toxic Chemical" under SARA Title III found in the Federal Register of June 4, 1987, pp. 21168-21179.

- THIS RAW MATERIAL IS CONSIDERED A TRADE SECRET. THE NECESSARY INFORMATION PERTAINING TO HAZARDS, CLEAN UP PROCEDURES, PHYSICAL AND CHEMICAL CHARACTERISTICS HAVE BEEN PROVIDED WITHIN.

IF THE MATERIAL DESCRIPTION IS FOLLOWED BY "E", THEN THE TLV/PEL IS A CEILING VALUE.

SECTION III PHYSICAL DATA

BOILING RANGE	HIGH	281.0 DF	LOW	148.0 DF
VAPOR PRESSURE		97.00 MMHG @68DF		
VAPOR DENSITY	HEAVIER THAN AIR			
EVAPORATION RATE	SLOWER THAN ETHER			
THEORETICAL WEIGHT PER GALLON		10.6	+/-	.2
THEORETICAL % VOLATILE BY VOLUME		49.43	+/-	4%
THEORETICAL % VOLATILE BY WEIGHT		31.65	+/-	4%

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA
FLAMMABILITY CLASSIFICATION OSHA-CLASS IB DOT- FLAMMABLE LIQUID
LOWER FLASHPOINT T.C.C. 24.0 DF LOWER EXPLOSION LEVEL (LEL) 1.1

EXTINGUISHING MEDIA: Foam, Carbon dioxide, Dry Chemical, Water Fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Liquid is flammable. Vapors in correct concentration can explode if exposed to sparks, flame, hot surfaces, electric sparks or static charge. Sealed containers may build up pressure and may explode if exposed to heat. Water may be used to cool containers. Use explosion-proof lighting only.

SPECIAL FIREFIGHTING PROCEDURES: Water may not be effective. Use self-contained breathing apparatus and full protective clothing. Decomposition products from burning are not fully known but would be a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

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MANUFACTURER'S CODE: 7122H800H-02

DATE OF PREPARATION- 1/11/9

SECTION V -- HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: ACUTE: Irritation to eyes, nose, and throat in
· high vapor concentrations. Liquid may cause chemical burn in eye; damage
· irreversible; may cause chemical burn on skin. CHRONIC: Liquid may cause
· skin sensitization. Reports associated repeated prolonged occupational
· overexposure to solvents with permanent brain and nervous system damage.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Asthmatic-type condi-
· tions, other chronic respiratory diseases or skin sensitization.

PRIMARY ROUTE OF ENTRY: Inhalation

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: Remove to fresh air. Re-
· store breathing. Treat symptomatically. Consult a physician. SPLASH (EYES)
· Flush with water for at least 15 minutes. Take to a physician. SPLASH
· (SKIN): Wash with soap and water. Remove contaminated clothing. Consult a
· physician. INGESTION: Drink water to dilute. Do not induce vomiting.
· Consult poison control center or physician immediately. Treat sympto-
· matically.

SECTION VI -- REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion produces carbon
· monoxide and other toxic gases.

CONDITIONS TO AVOID: High temperature or heat. Inadvertent over cataly-
· ation.

COMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents or mineral
· acids.

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove any
· possible source of ignition. No smoking. Ventilate enclosed spaces.
· Recover free liquid. Absorb with dry, inert material. Avoid breathing
· vapors; wear an appropriate, properly fitted respirator (NIOSH/MSHA
· approved).

WASTE DISPOSAL: Run-off to waterway creates fire hazard. Dispose of in
· accordance with federal, state, and local regulations.

MANUFACTURER'S CODE: 7122H800H-02

DATE OF PREPARATION- 1/11/9

SECTION VIII-- SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: In confined areas use NIOSH/MSHA approved air-supplied mask when spraying. In areas with restricted ventilation and organic-vapor and dust respirator may be sufficient.

VENTILATION: Use only with adequate ventilation. Use NIOSH/MSHA approved explosion-proof lighting and ventilation equipment. No smoking or open lights. Local Exhaust (When applying coating): Face Velocity >60FPM.

PROTECTIVE GLOVES: Neoprene or other solvent resistant material.

EYE PROTECTION: Chemical goggles or face splash shield.

OTHER PROTECTIVE EQUIPMENT: Use NIOSH/MSHA approved explosion-proof lighting. Clean coveralls and rubber soled shoes.

HYGIENIC PRACTICES: Observe good personal hygiene. Clean material off hands before eating, using toilet facilities, or smoking. No smoking while using or while containers are open.

SECTION IX-- SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed. Keep away from heat and open flame. Store in a NO SMOKING area.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapors. Avoid prolonged contact with skin. Avoid breathing dust from sanding, blasting, or abrading the dry coating.

DF= Degrees Fahrenheit
N/A= Not Available/Not Applicable

HMIS INFORMATION

HEALTH
REACTIVITY

3
0

FLAMMABILITY
PERSONAL PROTECTION

3

IN COMPLIANCE WITH THE STATE OF CALIFORNIA, THE FOLLOWING STATEMENT(S) APPLIES TO THIS PRODUCT:

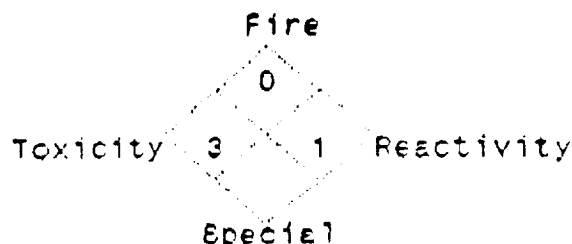
*"WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm."

*"WARNING: This product contains a chemical known to the State of California to cause cancer."

Note: The chemical(s) is recognized as a carcinogen by one of the following agencies: NTP, IARC, ACGIH.

NFPA HAZARD RATINGS

4 - Extreme
 3 - High
 2 - Moderate
 1 - Slight
 0 - Insignificant



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DIVISION AND LOCATION---SECTION I

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Division: ALLIED-KELITE

Location: NEW HUDSON, MI

29111 MILFORD RD., NEW HUDSON, MI, 48165

Emergency Telephone Number: (313) 437-8161

Transportation Emergency: CHEMTREC 1-(800) 424-9300 (U.S. and Canada)

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CHEMICAL AND PHYSICAL PROPERTIES---SECTION II

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Chemical Name:

chromic acid mixture

Formula: proprietary

Hazardous Decomposition Products:

none

Incompatibility (Keep away from):

Reducing agents, combustibles, organics and sulfur.

Toxic and Hazardous Ingredients:

chromic acid

%

30-60

CAS #

1333-82-0

see COMMENTS section

barium nitrate

10-30

10022-31-9

sodium silicofluoride

10-30

16893-85-9

Form: powder

Odor: none

Appearance: granular

Color: red brown

Specific Gravity (water=1): not applicable

Boiling Point: not applicable

Melting Point: not applicable

Solubility in Water (by weight %): 100 at 20°C

Volatile (by weight %): no data available

Evaporation Rate: no data available

Vapor Pressure (mm Hg at 20°C): not applicable

Vapor Density (air=1): not applicable

pH(2%): less than 1.5

Acidity or Alkalinity: Strong Acid

Stability: Product is stable under normal conditions

Viscosity SUS at 100°F: not applicable

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FIRE AND EXPLOSION DATA---SECTION III

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Special Fire Fighting Procedures:

none

Unusual Fire and Explosion Hazards:

Spontaneous combustion may occur upon contact with alcohols, ketones and other organic compounds.

Flashpoint: not applicable

Flammable limits %: not applicable

Extinguishing agents:

Drychemical or Waterspray or Waterfog or CO₂ or Foam or Sand/Earth

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HEALTH HAZARD DATA---SECTION IV

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Permissible concentrations (air):

chromic acid and chromates (as CrO₃): 0.1 ppm ceiling (OSHA);

chromium (VI) compounds as chromium (water soluble): 0.05 mg/m³ TWA (ACGIH)

barium (soluble compounds, as barium): 0.5mg/m³ (OSHA/ACGIH)

fluoride (as F): 2.5 mg/m³ (OSHA/ACGIH)

Chronic effects of overexposure:

Irritation, or at high concentrations, burns to skin, eyes, mucous membranes, and respiratory system. Inhalation may cause pulmonary edema, pneumonitis, or bronchitis.

Acute toxicological properties:

Causes skin and eyes burns on direct contact. Inhalation of dust, mist or vapors causes damage to mucous membranes and respiratory system. Swallowing causes damage to digestive tract.

chromic acid-subcutaneous-dog LDLo: 320 mg/kg (NIOSH)

fluoride salts-PEL 2.5 mg(F)/m³ (OSHA)

Emergency First Aid Procedures:

Eyes:

Immediately flush with large quantities of water on site for 20 to 30 minutes. Hold eyes open while flushing. Call a physician. Continue water flush up to one hour during transport to a medical facility.

Skin Contact:

Remove contaminated clothes and flush skin burns with water for at least twenty minutes. If irritation persists, extend the water rinse period from twenty to thirty minutes. Call a physician immediately after adequate rinsing.

Inhalation:

Remove victim to fresh air. Call a physician.

If Swallowed:

Do NOT induce vomiting. If conscious, have victim rinse mouth, then drink large amounts of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

(Continued on next page)

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ROUTES OF ENTRY:

skin contact, eye contact, inhalation and swallow

TARGET ORGAN(S):

skin, eyes, blood, respiratory system, liver and kidneys

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SPECIAL PROTECTION INFORMATION---SECTION V

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Ventilation Type Required (Local, mechanical, special):

Local if necessary to maintain allowable PEL (permissible exposure limit) or TLV (threshold limit value)

Respiratory Protection (Specify type):

If the TLV/PEL of the product or any component is exceeded, use a NIOSH/MSHA certified self contained breathing apparatus.

Protective Gloves:

rubber

Eye Protection:

chemical safety goggles and full face shield

Other Protective Equipment:

rubber apron, rubber boots

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HANDLING OF SPILLS OR LEAKS---SECTION VI

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Procedures for Clean-Up:

Wear protective clothing and equipment during cleanup. Sweep up powder spills and place in a steel container. For solution spills, absorb on an inert material such as earth, sand or vermiculite; sweep up and dispose of in accordance with federal, state and local regulations.

Waste Disposal:

Dispose of in accordance with all applicable federal, state and local regulations.

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SPECIAL PRECAUTIONS---SECTION VII

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Precautions to be taken in handling and storage:

Wear protective clothing and equipment while handling.

Wash thoroughly after handling.

Store away from reducing agents, combustibles, organics and sulfur.

Store away from direct heat or sunlight.

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TRANSPORTATION DATA---SECTION VIII

D.O.T.: Regulated

U.S. D.O.T. Proper Shipping Name: Chromic Acid Mixture Dry

U.S. D.O.T. Hazard Class: oxidizer

I.D. Number: NA 1463

Label(s) Required: oxidizer

Reportable Quantity: chromic acid--10 lb/4.54 kg

Freight Classification: 70 Chromic Acid Mixture Dry

Special Transportation Notes:

none

ENVIRONMENTAL/SAFETY REGULATIONS---SECTION IX

Section 313 (Title III Superfund Amendment and Reauthorization Act):

This product contains the following toxic chemical(s) subject to the reporting of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: (The CAS No. is not required to be reported for certain metal compounds; the percent of the compound is included.)

Chromium Compound

54% Chromium Compound

Barium Compound

20.5% Barium Compound

COMMENTS

Do not swallow. Avoid eye and skin contact. Wash thoroughly after handling. Avoid contact with clothing. Wash clothing before reuse. Keep from feed or food products. Keep out of reach of children. Keep containers tightly closed when not in use.

Discard contaminated shoes.

Chromium and certain chromium compounds are included in The Fourth Annual National Toxicology listing of chemicals known to be carcinogens.

Prepared by: C. Wilkie

Title: Development Chemist

Original Date:

Revision Date: 03/15/92

Supersedes: 07/24/91

Date Sent:

Sent to: _____

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We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

System

10

Candidate Manufacturer's Product Data and Recommendations							
Manufacture Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Wisconsin Prot. Ctgs Plasite 7122 epoxy phenolic	SP-5 (employed by NASA)	2.5	2	6 to 7 multi-pass	56%	Alum. Oxide (24)	B,C,A

Panel Number SS=657-678 Alum=679-700 Coupled=701-714 CPVC=715-732

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	657	14.9	15.7	15	15.7	14.9	15.6	15.3
SS	658	16.1	17.8	16.1	17.6	16.2	17.8	16.9
SS	659	15.3	16.2	15.3	16.1	15.2	16.4	15.8
SS	660	16.1	14.8	16.7	14.9	16.9	14.7	15.7
SS	661	16.2	17.1	16.5	17.2	16.1	17.4	16.8
SS	662	15.3	16.1	15.1	15.9	15.2	15.9	15.6
SS	663	16.2	14.3	16.2	14.3	16.2	14.5	15.3
SS	664	14.3	15.8	14.7	15.8	14.4	15.8	15.1
SS	665	14.6	14.5	14.5	14.8	14.4	14.6	14.6
SS	666	15.6	15.4	15.9	15.6	15.8	15.6	15.7
SS	667	16.4	17.7	16.3	17.4	16.5	17.4	17.0
SS	668	13.8	14.7	13.7	14.7	13.9	14.6	14.2
SS	669	16.5	15.2	16.4	15.2	16.7	15.1	15.9
SS	670	14.9	13.1	14.8	12.9	14.7	13.1	13.9
SS	671	15.4	16.3	15.6	16.4	15.7	16.6	16.0
SS	672	14.7	15.2	14.9	15	15.1	14.8	15.0
SS	673	16.7	14.1	16.5	14	16.6	13.9	15.3
SS	674	14.2	12.5	14.1	12.7	14.3	12.3	13.4
SS	675	14.4	14.9	14.4	14.7	14.1	14.5	14.5
SS	676	13.1	12.9	13	13.1	13	12.8	13.0
SS	677	15.5	13.7	15.4	13.6	15.6	13.7	14.6
SS	678	16	14.8	16.1	14.9	16.2	15.1	15.5
ALUM	679	13.4	14.2	13.4	14.1	13.5	14.1	13.8
ALUM	680	13	13.2	13.1	13.2	13.1	13	13.1
ALUM	681	15.2	15.1	14.8	14.9	14.8	15	15.0
ALUM	682	14.9	16.7	14.8	16.8	14.5	16.7	15.7
ALUM	683	14.9	15.4	15	15.7	14.9	15.5	15.2
ALUM	684	12.1	12.2	12.2	12.4	11.9	12.4	12.2
ALUM	685	12.8	13.8	13.2	13.3	13.3	13.2	13.3
ALUM	686	15.5	15.5	15.5	16	15.5	15.8	15.6
ALUM	687	14.7	14.2	14.5	14.1	14.7	14	14.4
ALUM	688	12.5	12.6	12.4	12.3	12.4	12.5	12.5
ALUM	689	11.3	14.2	11.1	14.2	11.1	14.3	12.7
ALUM	690	13.2	13.8	13.1	13.7	13.1	13.7	13.4
ALUM	691	14.1	14.6	14.2	14.7	14	14.4	14.3
ALUM	692	12.9	13.8	12.9	13.5	12.7	13.5	13.2
ALUM	693	13.8	12	13.6	12.6	13.8	12.6	13.1
ALUM	694	14.5	10.8	14.5	10.4	14.5	10.8	12.6
ALUM	695	11.7	14.7	11.6	14.9	11.8	15	13.3
ALUM	696	13.5	13.3	13.6	13.2	13.4	13.2	13.4
ALUM	697	13.8	13.9	13.9	13.9	13.9	13.9	13.9
ALUM	698	14.2	14.6	14.3	14.6	14.5	14.4	14.4
ALUM	699	13.7	13	13.8	12.9	13.7	13	13.4
ALUM	700	14.1	14.6	14.2	14.5	14.2	14.4	14.3

SS CPL	701		12.6	14.1	13.1	13.9	13.1	14.2	13.5
AL CPL	701		12.9	13.1	12.7	12.7	12.5	13.1	12.8
SS CPL	702		14.5	13.2	14.8	13.1	14.5	13.3	13.9
AL CPL	702		4.3	4.9	4.4	4.5	4.3	4.7	4.5
SS CPL	703		13.7	13.5	13.4	13.8	13.4	13.8	13.6
AL CPL	703		14.3	15.4	14.3	15.4	14.5	15.2	14.9
SS CPL	704		14.4	14.4	14.3	14.3	14.4	14.4	14.4
AL CPL	704		15.4	14.2	15.6	14.3	15.4	14.7	14.9
SS CPL	705		12.1	14.1	12.5	14.6	11.9	14.5	13.3
AL CPL	705		13.6	16.3	13.6	16.4	13.6	16	14.9
SS CPL	706		13.4	13.6	13.4	14.1	13.3	14.2	13.7
AL CPL	706		13.1	15.9	13	15.9	12.9	15.9	14.5
SS CPL	707		12.1	12.6	12.2	13	12.5	12.8	12.5
AL CPL	707		14.4	16	14	15.6	14	15.5	14.9
SS CPL	708		13.7	15.7	14.1	15.7	14.1	15.6	14.8
AL CPL	708		14.8	15.2	14.9	15.1	15.1	15.4	15.1
SS CPL	709		12.8	13.7	12.5	13.4	12.8	13.8	13.2
AL CPL	709		13.7	15.1	13.6	14.8	13.9		14.2
SS CPL	710		12.4	16.1	13	14.9	12.5	14.9	14.0
AL CPL	710		13.8	13.6	14	13.5	13.9	13.7	13.8
SS CPL	711		17.6	13.6	17.9	13.5	17.6	13.8	15.7
AL CPL	711	-	13.6	4.5	3.8	4.8	3.8	4.5	5.8
SS CPL	712		14.6	15.8	14.5	16	14.4	16.1	15.2
AL CPL	712		14.5	14.3	14.2	14.4	14.2	14.3	14.3
SS CPL	713		13	14.2	13.3	14.3	13.3	14.4	13.8
AL CPL	713		13.3	13.1	13	13	13	12.8	13.0
SS CPL	714		13.9	14.2	14	14.2	13.8	14.3	14.1
AL CPL	714		4.5	5.6	4.6	5.3	4.5	5.2	5.0
CPVC	715		163	165	35	37	36	18.0	18.0
CPVC	716		166	163	38	35	36.5	18.3	18.3
CPVC	717		159	157	31	29	30	15.0	15.0
CPVC	718		154	161	26	33	29.5	14.8	14.8
CPVC	719		159	154	31	26	28.5	14.3	14.3
CPVC	720		157	156	29	28	28.5	14.3	14.3
CPVC	721		157	162	29	34	31.5	15.8	15.8
CPVC	722		156	159	28	31	29.5	14.8	14.8
CPVC	723		160	166	32	38	35	17.5	17.5
CPVC	724		158	161	30	33	31.5	15.8	15.8
CPVC	725		159	160	31	32	31.5	15.8	15.8
CPVC	726		159	161	31	33	32	16.0	16.0
CPVC	727		161	154	33	26	29.5	14.8	14.8
CPVC	728		169	169	41	41	41	20.5	20.5
CPVC	729		161	154	33	26	29.5	14.8	14.8
CPVC	730		160	157	32	29	30.5	15.3	15.3
CPVC	731		161	158	33	30	31.5	15.8	15.8
CPVC	732		155	163	27	35	31	15.5	15.5
Adh	733		19.7	20	18.4	20.1	18.7	20.2	9.4
Adh	734		17.9	19.1	18	19	18.1	19.1	9.1
Tabor	735		14.6	18	14.1	18	13.8	17.7	6.9
Tabor	736		14.7	17.8	15.7	17.9	15.7	18	7.9
Impact	737		15.4	24.3	14.8	24.6	15.2	24.5	7.6
Impact	738		14.8	19	14.9	18.7	14.7	18.9	7.4

average 13.9 14.1 13.8 14.1 13.8 14.1 14.0

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JCB NO: H6341

Summary of Work Performed: Plaste 7122

(Repair)

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfgr/Product Name (Record)	Plaste		
Batch Numbers (Record)	A) 906 B) 1625-2		
Material Temperature/Potlife (Record)			
Correct Thinner/Amount (Record)			
Time of Mix (Record)	4:10		
Mix Ratio (Record)	35:1		
Induction Period (Record)	30 min		

APPLICATION

Ambient Conditions (Record)	DB: 74° WB: 64° RH: 58% DP: 59° ST:		
Applicator's Name (Record)	C. Poche		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	4:40		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)	Brush		
Time Application Complete (Record)	4:45 4:50		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: C. Poche
Date: 5/19/94
Report No.
Page of

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL) CLIENT:

JCB NO:

Summary of Work Performed: *Apply 2nd Coat Plasite 7122 H*

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	<i>Plasite 7122-H</i>		
Batch Numbers (Record)	<i>A-Lot 904 / B-Lot 1621-2</i>		
Material Temperature/Potlife (Record)	<i>76°F 24 hrs</i>		
Correct Thinner/Amount (Record)	<i>#71 thinner none used</i>		
Time of Mix (Record)	<i>11:30 am</i>		
Mix Ratio (Record)			
Induction Period (Record)	<i>30 min</i>		

APPLICATION

76°F 65°F

Ambient Conditions (Record)	DB: <i>77°F</i> WB: <i>70°F</i> RH: <i>64%</i> DP: <i>66°F</i> ST: <i>72°F</i>		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)		✓	
Compressed Air Cleanliness		✓	
Time Application Began (Record)	<i>12:00 pm</i>		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)	<i>Devilbiss</i>		
Time Application Complete (Record)	<i>2:00 pm</i>		

After A/C
Before A/C.

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: *one panel received 2 coats
d was 3 coats as per DFTs*Inspector: *E. Biggio*
Date: *14/1/94*
Report No.
Page *of*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JCB NO:

Summary of Work Performed: Apply Plasite 7122-H 1st coat

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	Plasite 7122-H		
Batch Numbers (Record)	A=Lot 904 / B=Lot 1621-2		
Material Temperature/Potlife (Record)	75°F 24 hrs.		
Correct Thinner/Amount (Record)	#71 Thinner		
Time of Mix (Record)	5:10 pm 6:10 pm		
Mix Ratio (Record)			
Induction Period (Record)	30 min 30		

APPLICATION

Ambient Conditions (Record)	DB: 76°F WB: 60°F RH: 38% DP: 50°F ST: 71°F		
Applicator's Name (Record)			
Surface Prep. to Appl. (Record Time)	6 hrs.		
Compressed Air Cleanliness		✓	
Time Application Began (Record)	5:45 6:45		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness			
Proper Pot Agitation	N/A		
Application Equipment (Record)	Devilbiss Cap		
Time Application Complete (Record)	6:45		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: R. Bupp

Date: 4 15 1994

Report No.

Page of

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Candidate Coatings			Manufacturer's Product Data and Recommendations				
Manufacture Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Wisconsin Prot. Clgs Plasite 7122	SP-5	2.5	2	6 to 7 multi-pass	56%	Alum. Oxide (24)	B,C,A
epoxy phenolic (employed by NASA)							
note: Aluminum substrates require chemical surface treatment after blast cleaning & prior to application of PLASITE product							

Panel Number SS=

Alum=

Coupled=

CPVC=

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS	657	5.4	6.6	5.4	6.4	5.4	6.4	#DIV/0!
SS	658	5.2	7.4	5.3	7.7	5.1	7.6	#DIV/0!
SS	659	4.8	6.2	4.7	6.1	4.7	6.2	#DIV/0!
SS	660	4.7	4.8	4.9	5.0	4.9	4.8	#DIV/0!
SS	661	6.1	7.6	6.2	7.5	6.3	7.4	#DIV/0!
SS	662	5.7	6.8	5.4	6.9	5.6	6.9	#DIV/0!
SS	663	6.6	5.2	6.5	5.2	6.3	5.1	#DIV/0!
SS	664	5.3	5.2	5.3	5.1	5.3	5.3	#DIV/0!
SS	665	6.4	6.7	6.5	6.7	6.3	6.7	#DIV/0!
SS	666	6.8	6.7	6.8	6.6	6.7	6.6	#DIV/0!
SS	667	7.1	7.7	7.1	7.6	7.1	7.5	#DIV/0!
SS	668	6.0	6.8	5.9	6.9	6.0	6.7	#DIV/0!
SS	669	6.3	6.0	6.2	6.1	6.4	6.0	#DIV/0!
SS	670	5.5	5.3	5.6	5.1	5.5	5.2	#DIV/0!
SS	671	5.7	6.9	5.7	6.9	5.8	7.0	#DIV/0!
SS	672	5.6	7.3	5.6	7.2	5.5	7.1	#DIV/0!
SS	673	7.4	6.1	7.3	6.0	7.4	6	#DIV/0!
SS	674	6.5	6.1	6.4	6.1	6.5	6.2	#DIV/0!
SS	675	6.6	6.4	6.6	6.1	6.7	6.2	#DIV/0!
SS	676	5.5	5.6	5.4	5.2	5.5	5.4	#DIV/0!
SS	677	7.1	7.0	7.2	6.7	7.2	5.9	#DIV/0!
SS	678	7.0	6.7	7.1	6.7	7.1	6.7	#DIV/0!
ALUM	679	5.7	7.1	5.4	7.0	5.6	6.9	#DIV/0!
ALUM	680	6.8	7.3	6.7	7.1	6.9	7.3	#DIV/0!
ALUM	681	11.2	11.7	10.8	11.6	10.8	11.5	#DIV/0!
ALUM	682	5.5	7.2	5.6	7.3	5.6	7.3	#DIV/0!
ALUM	683	6.7	7.0	6.7	7.1	6.5	7.0	#DIV/0!
ALUM	684	8.0	8.9	7.8	8.9	8	9.1	#DIV/0!
ALUM	685	10.4	11.1	10.2	11.0	10.5	11.0	#DIV/0!
ALUM	686	5.6	6.4	5.7	6.3	5.8	6.5	#DIV/0!
ALUM	687	6.3	6.4	6.5	6.4	6.4	6.2	#DIV/0!

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	688		8.1	9.5	8.4	9.3	8.1	9.3	#DIV/0!
ALUM	689		8.7	10.4	7.8	10.6	7.8	10.5	#DIV/0!
ALUM	690		9.8	9.8	9.6	9.7	9.5	9.5	#DIV/0!
ALUM	691		10.3	10.5	10.4	10.7	10.5	10.6	#DIV/0!
ALUM	692		9.5	10.3	9.6	10.3	9.5	10.1	#DIV/0!
ALUM	693		10.6	9.5	10.4	9.6	10.3	9.5	#DIV/0!
ALUM	694		11.1	8.6	10.9	8.6	10.9	8.7	#DIV/0!
ALUM	695		8.4	12.0	8.3	12.1	8.4	12.3	#DIV/0!
ALUM	696		9.1	9.9	8.9	9.9	8.9	10.0	#DIV/0!
ALUM	697		10.4	11.5	10.3	11.4	10.3	10.9	#DIV/0!
ALUM	698		10.6	11.3	10.7	11.2	10.8	11.3	#DIV/0!
ALUM	699		11.4	10.1	11.3	10.2	11.1	10.4	#DIV/0!
ALUM	700		10.3	11.6	10.3	11.5	10.2	11.7	#DIV/0!
SS CPL	701		5.4	5.3	5.5	5.0	5.6	5.0	#DIV/0!
AL CPL	701		5.4	6.0	5.5	5.8	5.6	6.0	#DIV/0!
SS CPL	702		5.1	3.8	5.2	3.8	5.2	3.7	#DIV/0!
AL CPL	702		5.1	5.0	4.8	5.0	5.1	5.2	#DIV/0!
SS CPL	703		5.7	5.3	5.8	5.2	5.8	5.3	#DIV/0!
AL CPL	703		5.9	6.2	5.9	6.7	5.8	6.4	#DIV/0!
SS CPL	704		7.5	5.5	7.2	5.7	7.2	5.4	#DIV/0!
AL CPL	704		5.8	6.2	6.3	6.1	6.4	6	#DIV/0!
SS CPL	705		5.0	5.5	5.3	5.0	5.0	5.3	#DIV/0!
AL CPL	705		5.4	6.1	5.4	5.9	5.5	5.9	#DIV/0!
SS CPL	706		6.1	5.5	6.2	5.5	6.3	5.4	#DIV/0!
AL CPL	706		5.7	6.3	5.3	6.6	5.3	6.5	#DIV/0!
SS CPL	707		4.3	4.9	4.7	5.0	4.4	5.2	#DIV/0!
AL CPL	707		6.1	6.7	6.0	7.1	5.5	6.9	#DIV/0!
SS CPL	708		5.4	5.7	5.1	5.9	5.2	5.7	#DIV/0!
AL CPL	708		6.0	6.4	5.7	6.5	5.7	6.6	#DIV/0!
SS CPL	709		5.0	4.4	5.0	4.6	4.8	4.7	#DIV/0!
AL CPL	709		5.5	5.8	5.6	5.9	5.4	5.8	#DIV/0!
SS CPL	710		5.2	5.4	5.2	5.7	5.5	5.9	#DIV/0!
AL CPL	710		5.6	5.9	5.4	6.0	5.3	6.0	#DIV/0!
SS CPL	711		7.5	5.0	7.4	5.0	7.9	5.1	#DIV/0!
AL CPL	711		4.3	4.8	4.4	4.9	4.5	5.1	#DIV/0!

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL	712	5.8	6.4	5.9	6.4	5.9	6.1	#DIV/0!
AL CPL	712	6.0	6.2	6.3	6.0	5.7	5.9	#DIV/0!
SS CPL	713	5.3	4.7	5.1	4.8	5.4	4.7	#DIV/0!
AL CPL	713	4.9	5.4	5.3	5.5	5.0	5.5	#DIV/0!
SS CPL	714	4.8	4.7	4.8	4.7	4.7	4.7	#DIV/0!
AL CPL	714	5.1	5.8	5.0	5.6	5.0	5.7	#DIV/0!
CPVC	715							#DIV/0!
CPVC	716							#DIV/0!
CPVC	717							#DIV/0!
CPVC	718							#DIV/0!
CPVC	719							#DIV/0!
CPVC	720							#DIV/0!
CPVC	721							#DIV/0!
CPVC	722							#DIV/0!
CPVC	723							#DIV/0!
CPVC	724							#DIV/0!
CPVC	725							#DIV/0!
CPVC	726							#DIV/0!
CPVC	727							#DIV/0!
CPVC	728							#DIV/0!
CPVC	729							#DIV/0!
CPVC	730							#DIV/0!
CPVC	731							#DIV/0!
CPVC	732							#DIV/0!
Adh	733	10.3	13.1	10.4	13.6	10.5	13.1	#DIV/0!
Adh.	734	11.5	11.8	11.5	12.2	11.7	11.7	#DIV/0!
Tabor	735	9.5	10.8	9.1	11.2	9.0	11.4	#DIV/0!
Tabor	736	8.2	10.4	8.0	10.4	8.2	10.7	#DIV/0!
Impact	737	10.5	17.1	10.3	16.7	10.4	17.9	#DIV/0!
Impact	738	10.2	11.8	9.9	12	9.7	12	#DIV/0!

Candidate Coatings		Manufacturer's Product Data and Recommendations					
Manufacture Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
Wisconsin Prot. Cigs Plasite 7122	SP-5	2.5	2	6 to 7 multi-pass	56%	Alum. Oxide (24)	B,C,A
epoxy phenolic (employed by NASA)							
note: Aluminum substrates require chemical surface treatment after blast cleaning & prior to application of PLASITE product							

Panel Number SS=		Alum=		Coupled=		CPVC=			
Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT	
SS	657	14.9	15.7	15.0	15.7	14.9	15.4	#DIV/0!	
SS	658	16.1	17.8	16.1	17.6	16.2	17.8	#DIV/0!	
SS	659	15.3	16.2	15.3	16.1	15.2	16.4	#DIV/0!	
SS	660	14.1	14.8	16.7	14.9	16.9	14.7	#DIV/0!	
SS	661	16.2	17.1	16.5	17.2	16.1	17.4	#DIV/0!	
SS	662	15.3	16.1	15.1	15.9	15.2	15.9	#DIV/0!	
SS	663	16.2	14.3	16.2	14.3	16.2	14.5	#DIV/0!	
SS	664	14.3	15.8	14.7	15.8	14.4	15.8	#DIV/0!	
SS	665	14.6	14.5	14.5	14.8	14.4	14.6	#DIV/0!	
SS	666	15.6	15.4	15.9	15.6	15.8	15.6	#DIV/0!	
SS	667	16.4	17.7	16.3	17.4	16.5	17.4	#DIV/0!	
SS	668	13.8	14.7	13.7	14.7	13.9	14.6	#DIV/0!	
SS	669	16.5	15.2	16.4	15.2	16.7	15.1	#DIV/0!	
SS	670	14.9	13.1	14.8	12.9	14.7	13.1	#DIV/0!	
SS	671	15.4	16.3	15.4	16.4	15.7	16.6	#DIV/0!	
SS	672	14.7	15.2	14.9	15.0	15.1	14.8	#DIV/0!	
SS	673	16.7	14.1	16.5	14.0	16.6	13.9	#DIV/0!	
SS	674	14.2	12.5	14.1	12.7	14.3	12.3	#DIV/0!	
SS	675	14.4	14.9	14.4	14.7	14.1	14.5	#DIV/0!	
SS	676	13.1	12.9	13	13.1	13.0	12.8	#DIV/0!	
SS	677	15.8	13.7	15.4	13.6	15.6	13.7	#DIV/0!	
SS	678	16.0	14.8	16.1	14.9	16.2	15.1	#DIV/0!	
ALUM	679	13.4	14.2	13.4	14.1	13.5	14.1	#DIV/0!	
ALUM	680	13	13.2	13.1	13.2	13.1	13.0	#DIV/0!	
ALUM	681	15.2	15.1	14.8	14.9	14.8	15.0	#DIV/0!	
ALUM	682	14.9	16.7	14.8	16.8	14.5	16.7	#DIV/0!	
ALUM	683	14.9	15.4	15.0	15.7	14.9	15.5	#DIV/0!	
ALUM	684	12.1	12.2	12.2	12.4	11.9	12.4	#DIV/0!	
ALUM	685	12.8 12.8	13.8	13.2	13.3	13.3	13.2	#DIV/0!	
ALUM	686	15.5	15.5	15.5	16	15.5	15.8	#DIV/0!	
ALUM	687	14.7	14.2	14.5	14.1	14.7	14.0	#DIV/0!	

Panel #/Tag #		Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM	688		12.5	12.6	12.4	12.3	12.4	12.5	#DIV/0!
ALUM	689		11.3	14.2	11.1	14.2	11.1	14.3	#DIV/0!
ALUM	690		13.2	13.8	13.1	13.7	13.1	13.7	#DIV/0!
ALUM	691		14.1	14.6	14.2	14.7	14.0	14.4	#DIV/0!
ALUM	692		12.9	13.8	12.9	13.5	12.7	13.5	#DIV/0!
ALUM	693		13.8	12	13.6	12.6	13.8	12.6	#DIV/0!
ALUM	694		12.6 14.5	12.5 10.9	12.5 12.5	12.6 10.4	12.8 14.5	12.9 10.8	#DIV/0!
ALUM	695		11.7	14.7	11.6	14.9	11.8	15	#DIV/0!
ALUM	696		13.5	13.3	13.6	13.2	13.4	13.2	#DIV/0!
ALUM	697		13.8	13.9	13.9	13.9	13.9	13.9	#DIV/0!
ALUM	698		14.2	14.6	14.3	14.6	14.5	14.4	#DIV/0!
ALUM	699		13.7	13.0	13.8	12.9	13.7	13	#DIV/0!
ALUM	700		14.1	14.6	14.2	14.5	14.2	14.4	#DIV/0!
SSCPL	701		12.6	14.1	13.1	13.9	13.1	14.2	#DIV/0!
AL CPL	701		12.9	13.1	12.7	12.7	12.5	13.1	#DIV/0!
SSCPL	702		14.5	13.2	14.8	13.1	14.5	13.3	#DIV/0!
AL CPL	702		4.3	4.9	4.4	4.5	4.3	4.7	#DIV/0!
SSCPL	703		13.7	13.5	13.4	13.8	13.4	13.8	#DIV/0!
AL CPL	703		14.3	15.4	14.3	15.4	14.5	15.2	#DIV/0!
SSCPL	704		14.4	14.4	14.3	14.3	14.4	14.4	#DIV/0!
AL CPL	704		15.4	14.2	15.1	14.3	15.4	14.7	#DIV/0!
SSCPL	705		12.1	14.1	12.5	14.6	11.9	14.5	#DIV/0!
AL CPL	705		13.6	16.3	13.6	16.4	13.6	16	#DIV/0!
SSCPL	706		13.4	13.6	13.4	14.1	13.3	14.2	#DIV/0!
AL CPL	706		13.1	15.9	13.0	15.9	12.9	15.9	#DIV/0!
SSCPL	707		12.1	12.6	12.2	13.0	12.5	12.8	#DIV/0!
AL CPL	707		14.4	16	14.0	15.6	14	15.5	#DIV/0!
SSCPL	708		13.7	15.7	14.1	15.7	14.1	15.6	#DIV/0!
AL CPL	708		14.8	15.2	14.9	15.1	15.1	15.4	#DIV/0!
SSCPL	709		12.8	13.7	12.5	13.4	12.8	13.8	#DIV/0!
AL CPL	709		13.7	15.1	13.6	14.8	13.9	15.5	#DIV/0!
SSCPL	710		12.4	16.1	13.0	14.9	12.5	14.9	#DIV/0!
AL CPL	710		13.8	13.6	14.0	13.5	13.9	13.7	#DIV/0!
SSCPL	711		17.6	13.6	17.9	13.5	17.6	13.8	#DIV/0!
AL CPL	711		3.6	4.5	3.8	4.8	3.8	4.5	#DIV/0!

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Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS CPL	712	14.6	15.8	14.5	16	14.4	16.1	#DIV/0!
AL CPL	712	14.5	14.3	14.2	14.4	14.2	14.3	#DIV/0!
SS CPL	713	13.0	14.2	13.3	14.3	13.3	14.4	#DIV/0!
AL CPL	713	13.3	13.1	13.0	13.0	13.0	12.8	#DIV/0!
SS CPL	714	13.9	14.2	14.0	14.2	13.8	14.3	#DIV/0!
AL CPL	714	4.5	5.6	4.6	5.3	4.5	5.2	#DIV/0!
CPVC	715							#DIV/0!
CPVC	716							#DIV/0!
CPVC	717							#DIV/0!
CPVC	718							#DIV/0!
CPVC	719							#DIV/0!
CPVC	720							#DIV/0!
CPVC	721							#DIV/0!
CPVC	722							#DIV/0!
CPVC	723							#DIV/0!
CPVC	724							#DIV/0!
CPVC	725							#DIV/0!
CPVC	726							#DIV/0!
CPVC	727							#DIV/0!
CPVC	728							#DIV/0!
CPVC	729							#DIV/0!
CPVC	730							#DIV/0!
CPVC	731							#DIV/0!
CPVC	732							#DIV/0!
Adh	733	19.7	20	18.5	20.1	18.7	20.2	#DIV/0!
Adh	734	17.9	19.1	18.0	19.0	18.1	19.1	#DIV/0!
Tabor	735	14.6	18.0	14.1	18	13.8	17.7	#DIV/0!
Tabor	736	14.7	17.8	15.7	17.9	15.7	18	#DIV/0!
Impact	737	15.4	24.3	14.8	24.6	15.2	24.5	#DIV/0!
Impact	738	14.8	19	14.9	18.7	14.7	18.9	#DIV/0!

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System #10 Manufacturer's Product Data and Recommendations							
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
American Chemical							
Aquatapox A6 amine epoxy	SP-5	2	2	6 to 8	100%	Alum. Oxide (24)	B,R,P
Vickers Ind. Ctg (dist)		DO NOT THIN					

Panel Numbers SS=739-760 Alum=761-782 Coupled=783-796 CPVC=797-814

Panel #/Tag #	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 739	2.5	24.1	32.9	24	32	24	32	26.2
SS 740		29.1	35.9	27.4	34.7	28.9	34.9	31.8
SS 741		16.6	31.5	16.5	31.7	16.3	31.7	24.1
SS 742		15.7	11	16.1	11.1	15.9	11	13.5
SS 743		13.9	9.4	13.9	9	13.8	8.9	11.5
SS 744	2.5	30.8	36	31.1	35.9	31.5	36.1	33.6
SS 745		20.5	26.4	20.1	25.9	20.4	28.7	23.7
SS 746		12.1	16.3	12.2	16.6	11.8	16.5	14.3
SS 747		11.9	27.6	12.6	27.3	12.3	27.6	19.9
SS 748		19.9	11.7	19.6	11.2	19.6	11.3	15.6
SS 749	2.2	41.4	30.5	41.7	30.3	41.8	30.2	36.0
SS 750		23.9	24.3	23.6	24.5	22.9	24.3	23.9
SS 751		18.4	25.9	18.5	26.6	18.5	26.9	22.5
SS 752		7.9	10.5	7.9	10	7.8	9.9	9.0
SS 753		16.8	11.9	16.7	11.3	16.5	13.1	14.4
SS 754	2.4	32.2	30	32.3	30.9	32.8	30.5	31.5
SS 755		20.2	28.6	20.4	28.7	20.3	28.6	24.5
SS 756		22.6	13.7	24.2	13.4	23.6	13.2	18.5
SS 757		28.3	18	28.6	18.6	28.2	18.2	23.3
SS 758		20.3	14.3	20.4	14.2	21.3	14.2	17.5
SS 759	2.2	22.8	30.9	22.8	30.1	22.2	30	26.5
SS 760		10.1	28.7	10.2	28.4	9	28.1	19.1
ALUM 761	2.8	29.8	28.4	29.8	28.1	30	28.3	29.1
ALUM 762		26.1	30.2	25.5	30.6	25.9	30.1	28.1
ALUM 763		14.7	27.5	15	27	14.9	27.1	21.0
ALUM 764		10.7	25.8	11	26.3	10.9	26	18.5
ALUM 765		13.6	17	13.3	17.2	13.5	17.1	15.3
ALUM 766	2.8	25.5	39.1	25.5	39	25.4	39	32.3
ALUM 767		13.3	21.5	12.8	22.2	12.9	21.8	17.4
ALUM 768		22.7	11	22.5	11.2	22.6	11.1	16.9
ALUM 769		15.9	14.9	15.6	14.2	15.9	15.1	15.3
ALUM 770		25.3	37	24.8	36.9	25.4	36.6	31.0
ALUM 771	2.9	27	37.5	27.3	37.1	27	37.6	32.3
ALUM 772		10.7	10.7	10	10.4	10.6	10.4	10.5
ALUM 773		7.7	18.7	7	18.1	7.6	18.7	13.0
ALUM 774		30.5	21.7	30.6	21.4	30	21.3	25.9
ALUM 775		10.5	9.4	10.8	9.4	10.7	9.3	10.0
ALUM 776		24.5	24.5	24.8	24.8	24.7	24.3	24.6
ALUM 777		15.7	12.5	15.5	12.4	15.5	12.3	14.0
ALUM 778		20.2	22.1	20.1	21.7	20.3	21.9	21.1
ALUM 779		23.4	21.2	24.5	21.2	24.4	21.4	22.7
ALUM 780		21.3	18.7	21.2	18.5	21.3	18.6	19.9
ALUM 781	2.8	14.8	27.2	14.8	26.8	147.9	27	43.1
ALUM 782		21.8	9.8	21	11.9	21.5	10.7	16.1

SSCPL	783	2.4	18.6	16.5	21.4	16.1	20.9	13.8	17.9
AL CPL	783	2.7	9.1	10.1	6.3	10.8	6.6	8.4	8.6
SSCPL	784		20	21.7	17.7	22.1	18	23.9	20.6
AL CPL	784		12.5	20	12.8	18.7	12.1	19.1	15.9
SSCPL	785		23.7	16.6	23.7	15.7	23.9	14.9	19.8
AL CPL	785		12.8	19.1	12.6	18.7	13	18.8	15.8
SSCPL	786		22.1	14.4	20.3	16	21.4	15.9	16.4
AL CPL	786		9.4	12.1	10.3	14.4	10	11.3	11.3
SSCPL	787		26	30.4	29.2	27	31.5	24	28.0
AL CPL	787		10.7	11.5	8.8	11	8.7	11	10.3
SSCPL	788	2.3	19.3	17.2	19.3	16.7	19	14.2	17.6
AL CPL	788	2.4	9.8	10.6	11.1	10.6	9.8	10.7	10.4
SSCPL	789		19.4	27.8	21	27.7	21.8	28.1	24.3
AL CPL	789		8.3	9.2	9	9.4	8.3	9.8	9.0
SSCPL	790		28.8	28.2	30.1	26.8	29.2	25.4	28.1
AL CPL	790		17.1	8.6	15.3	17	16.9	20.8	16.0
SSCPL	791		23.7	26.1	23.6	24.4	21.6	26.2	24.3
AL CPL	791		5	23.7	5.7	22.8	5.8	23.7	14.5
SSCPL	792		26.1	19.6	25.4	19.7	29.7	19.6	23.4
AL CPL	792		8.8	12.2	9.2	8.7	8.4	12.2	9.9
SSCPL	793	2.1	17.9	14.6	17.4	14.1	15.8	13.9	15.6
AL CPL	793	2.6	13.8	11.1	13.3	18.4	13.8	10.5	13.5
SSCPL	794		18.5	24.3	18.3	24.3	14.4	22.7	20.4
AL CPL	794		14.6	10.2	11	6.7	9	8	9.9
SSCPL	795		36.7	25.3	36.7	25.2	36.8	25.9	31.1
AL CPL	795		11.8	14.9	11.4	11.9	12.5	11.9	12.4
SSCPL	796		16.6	18.4	18.5	17.2	15.9	16.8	17.2
AL CPL	796		10.5	11.5	9.4	12.7	11.9	11.8	11.3
CPVC	797		169	154	41	26	33.5	16.75	16.8
CPVC	798		155	156	27	28	27.5	13.75	13.8
CPVC	799		159	167	31	39	35	17.5	17.5
CPVC	800		165	161	37	33	35	17.5	17.5
CPVC	801		156	154	28	26	27	13.5	13.5
CPVC	802		174	160	46	32	39	19.5	19.5
CPVC	803		156	157	28	29	28.5	14.25	14.3
CPVC	804		166	154	38	26	32	16	16.0
CPVC	805		149	163	21	35	28	14	14.0
CPVC	806		149	160	21	32	26.5	13.25	13.3
CPVC	807		164	168	36	40	38	19	19.0
CPVC	808		164	165	36	37	36.5	18.25	18.3
CPVC	809		156	167	28	39	33.5	16.75	16.8
CPVC	810		148	156	20	28	24	12	12.0
CPVC	811		165	156	37	28	32.5	16.25	16.3
CPVC	812		148	171	20	43	31.5	15.75	15.8
CPVC	813		150	143	22	15	18.5	9.25	9.3
CPVC	814		157	158	29	30	29.5	14.75	14.8
Adh	815		6.2	13.1	8.3	12.7	5.4	12.9	9.8
Adh	816		6.7	14.2	9.6	9.7	8.7	12.9	10.3
Tabor	817		11.2	13.9	11.3	12.5	10.4	13.1	12.1
Tabor	818		17.7	10.9	15.6	21.2	13.2	19.9	16.2
Impact	819		12.3	19	12.4	20.9	12	19.9	16.1
Impact	818		27.4	9.9	27	14.7	28.6	13.8	20.2

average: 18.8 20.5 18.8 20.5 20.6 20.3 18.7

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AQUATAPOXY COATING SYSTEM A-6 GENERAL INFORMATION

Description:	AquataPoxy Coating System A-6 (Part A, 35-140 and Part B, 35-137) is an innovative, 100% solids, corrosion resistant epoxy coating that can be applied to dry, wet or underwater surfaces.
Typical Uses:	Any surface where water or corrosion resistance is needed. Examples include: waste water facilities, storage tanks, sewer systems, manhole restoration, swimming pools, aquariums, agricultural facilities, theme parks and general maintenance.
Colors:	White is the standard product color. Black, Blue, Gray, Green and Tan are available. Special colors are only available on a limited basis. Contact American Chemical for information.
Primers:	Recommend using DynaBond Primer System D-1 (Part A, 35-300 and Part B, 35-330) on rusty metal surfaces.
Surface Preparation:	Surfaces must be cleaned of all rust, scale, marine growth, grease, dirt, debris and other contaminants to SSPC-SP10 standard for non-immersed surfaces and to SSPC-SP5 standard for immersed surfaces. An alternate procedure is to use a high pressure (2000 psi minimum) water blast or water with sand injection. The anchor profile for surface preparation must be a minimum of 2 mils.
Solids by Volume:	100%
Volatile Organic Compounds (VOC's):	0.0 grams/liter; 0.0 pounds/gallon
Theoretical Coverage:	160 ft ² /gallon @ 10 mils thickness. Actual surface coverage will depend on surface irregularities. Trials are recommended to determine the actual coverage required to yield a desired film thickness for each individual type of installation.

VICKERS INDUSTRIAL COATINGS, INC.
P.O. Box 506
Channelview, TX 77530
(713) 452-5040 (800) 392-5459

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Page 2

A-6 General Information

Film Thickness:	A maximum of 10 mils per coat is recommended to prevent sagging. Repeat applications are required to achieve coating thickness greater than 10 mils.
Curing time @ 75°F:	8 hours to recoat surface. 24 hours for a thorough cure. 24 hours for immersion service.
Temperature Resistance:	AquataPoxy Coating System A-6 has passed tests to 200°F on unpainted steel.
Mixing Ratio:	Equal volumes of Part A, 35-140 and Part E, 35-137.

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Page 3
AquataPoxy Coating System A-6
Application Information

Application
Equipment:

Use pressure to apply with short nap roller, brush, squeegee or urethane paint pad to dry, damp, dripping or underwater surfaces.

Clean Up:

To clean tools, use acetone (flammable) or xylene (flammable). To clean skin, wash thoroughly with soap and water. Be sure to read and follow the cautions on American Chemical container labels.

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AQUATAPOXY COATING SYSTEM A-6
APPLICATION INFORMATION

Mixing: Mix equal volumes of Part A and Part B of AquataPoxy Coating System A-6. This is very important. Mix thoroughly at least 2 minutes by hand or with mechanical mixer. For mixing 2 - 4 gallon quantities, use electric drill with paint mixing attachment. Scrape sides of container frequently. Mix only the amount you can use in 30 minutes (the pot life of two gallons at 77°F (25°C)).

At temperatures above 77°F (25°C), mix no more than one gallon (1/2 gallon Part A and 1/2 gallon Part B) to start. If sufficient time exists to apply this quantity before the pot life is exceeded, slightly larger quantities can be mixed. When AquataPoxy will be applied in cooler temperatures between 40°F and 55°F (4°C and 13°C), the material should be stored at room temperature for at least a day before application. Do not mix AquataPoxy Part A or Part B materials that are not listed components of an AquataPoxy Coating System.

**Coverage
Rate:**

<u>Average Film Thickness</u> <u>(in mils - .001)</u>	<u>Square Foot Coverage</u> <u>(per gallon)</u>	<u>Gallons Required Per</u> <u>(100 ft² of coverage)</u>
.010	160	0.655
.016	100	1.0
.020	80	1.25
.0266	60	1.60
.030	53	1.86
.032	50	2.0
.040	40	2.5
.047	35	2.857
.052	30	3.33
.064	25	4.0
.080	20	5.0
.100	16	6.25
.125 (1/8 inch)	12.8	7.8125

Note! 1. Add 10% (minimum) to the total number of gallons of product estimated to cover the surface area to accommodate routine application and installation variables.

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P.O. Box 506
Cincinnati, TX 77560
(713) 432-5000 (800) 312-5150

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VICKERS INDUSTRIAL CO. 2000 Bldg.
P.O. Box 500
Chicago, IL 60606
(712) 452-5040 (800) 322-5459

Page 2
AquataPoxy Coating System A-6
Application Information

For example:

A dry film thickness of .032 (32 mils) is required on a floor surface area of 3500 sq. ft.

calculation;

- * .032 (32 mils) average film thickness coverage rate = 50 sq. ft./gallon (see coverage info. above).
- * 3500 sq. ft. divided by 50 sq. ft./gallon = 70 gallons. 70 gallons X 10% = 77 gallons (min.).
- * AquataPoxy 50 - 50, ratio requires equal quantities of A & B components. Therefore, 78 gallons are required to cover the 3500 sq. ft. floor.

Note! 2.

Extremely irregular and/or heavily textured surfaces may require larger quantities of product than estimated for smooth, flat surfaces. Test trials are recommended to determine the actual coverage rate required to yield the desired film thickness for each given type installation.

Cure Time/
Recoat Time:

AMBIENT
TEMPERATURE

TACK FREE/
RECOAT TIME

THOROUGH
CURE

90°F
70°F
34°F

4 hours
8 hours
2 days

18 hours
36 hours
3 days

Substrate
Temperature:

Minimum recommended 50°F.
Maximum recommended 90°F.

Thinning:

AquataPoxy Coatings are thicker than most paints. Do not thin with solvents. They leave pin holes as they evaporate and can interfere with adhesion. The best thinning technique, if thinning is necessary, is to heat the material by placing the unopened containers in hot tap water about 130°F (55°C) until the desired flow characteristics are present.

Pot Life:

40 minutes for 1 gallon at 75°F.
30 minutes for 2 gallons at 75°F.

It is important to remember that the pot life will vary depending on the quantity of epoxy mixed and the ambient temperature. Larger quantities and higher temperatures will reduce the pot life considerably.

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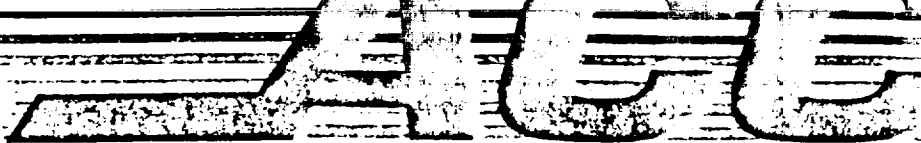
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AQUATAPOXY COATING SYSTEM A-6 CHEMICAL RESISTANCE

<u>CHEMICAL</u>	<u>% WEIGHT INCREASE (DECREASE)</u>	<u>FILM INTEGRITY</u>
Distilled H ₂ O	22	Excellent
Mineral Spirits	0	Excellent
Ethylene Glycol	6	Good
Gasoline (10% Ethanol)	8	Good
Gasoline (10% Methanol)	8	Good
Methyl Ethyl Ketone (MEK)	6	Good
Toluene	1	Excellent
1,1,1 Trichloroethane	0	Excellent
10% Potassium Hydroxide (KOH)	1.5	Excellent
3% Hydrochloric Acid (HCl)	2	Excellent
10% Sulfuric Acid (H ₂ SO ₄)	19	Excellent

VICKERS INDUSTRIAL CHEMICALS, INC.
P.O. Box 508
Channahon, IL 61530
(712) 452-5040 (800) 392-5456



SPECIALTY
COATING
SYSTEMS

AMERICAN CHEMICAL CORP.

AQUATAPOXY COATING SYSTEM A-6
PERFORMANCE TESTS

<u>DESCRIPTION</u>	<u>METHOD</u>	<u>RESULT</u>
Flexural Strength	ASTM D 790	8030 psi
Flexural Modulus	ASTM D 790	7.9×10^5 psi
Yield Compressive Strength	ASTM D 695	4175 psi
Tensile Strength	ASTM D 638	2700 psi
Ultimate Elongation	ASTM D 638	3.4%
Hardness	ASTM D 2583	87 Shore D
Impact - IZOD	ASTM D 256	0.27 ft. lb./in. of notch
Water (2% Chlorine)	Coating applied to concrete, cured 7 days prior to testing, immersed in 2% chlorine water solution at ambient temperature 20-100°F.	No delamination, blistering or loss of film integrity after 16 months of exposure.

VICORCHEMICAL COATINGS, INC.
P.O. Box 506
Cedar Grove, TX 77520
(409) 272-5450

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AQUATAPOXY COATING SYSTEM A-6
SHIPPING, STORAGE AND SAFETY DATA

Components: System A-6 Part A, 35-140
Part B, 35-137

Available Packages: Pint cans, 1 gallon pails, 5 gallon pails, 55 gallon drums.
Package sizes are ordered in multiples of two (Part A and Part B).

Weight per Gallon: Part A, 35-140: 9.9 ± 0.3 pounds per gallon.
Part B, 35-137: 13.3 ± 0.3 pounds per gallon.
Mixed: 11.6 ± 0.3 pounds per gallon.

Storage: Store AquataPoxy Coating System A-6 between 60°F and 80°F (15°C and 27°C). If subjected to temperatures below 50°F (10°C) for extended periods, AquataPoxy can become stiff or hard. In such cases, heat the material by immersing the containers in 130°F to 180°F tap water or, if the sun is available, place the containers in the hot sun until they become soft and fluid. Material which has been softened in this manner retains all of its original strength and chemical resistance characteristics.

Shelf Life: 1 year in sealed, unmixed containers at room temperature.

Flash Point: Part A, 35-140: >200°F (TCC method).
Part B, 35-137: >200°F (TCC method).

Disclaimer: Although the information presented herein is believed to be accurate, American Chemical Corp. makes no warranty expressed or implied, and further disclaims any liability as the suitability of such information to particular end use application of any AquataPoxy Coating System.

Warranty: The following warranty is made in lieu of all other warranties, expressed or implied. Manufacturer will replace any quantity of product if defective, within one year from date of purchase. Under no circumstances will manufacturer be responsible for any damage to any surface, nor for personal injuries, if product is used contrary to manufacturer's directions.

AMERICAN CHEMICAL CORP.
P.O. Box 500
Clenchview, TX 77530
(409) 332-5000 (409) 332-5100

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5231 NORTHRUP AVE. • ST. LOUIS, MO 63110
314/664-2403
314/772-5749 (fax)
800-633-0247

Latest Revision Date: 1/18/93

Trade Name: Aquatapoxy Coating System A-6 - Part B 35-137

Chemical Family: AMINE

Other Emergency Telephone • Chemtrec 1-800-424-9300

SECTION 2: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>PEL</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>	<u>TLV</u>
Silica *	20 mg/m ³	7631-86-9	62-67	10 mg/m ³

* Hazardous as dust only.

SARA Title III, Section 313 ingredients: NONE

SECTION 2A: NON-HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NUMBER</u>
Cycloaliphatic Amine	N/A
Aliphatic Polyamine	90-72-2

SECTION 3: PHYSICAL DATA

Appearance and Odor: Heavy paint to mastic consistency - bland odor
Initial Boiling Point: >200°F
Vapor Pressure: N/A
Vapor Density: N/A
Specific Gravity: 1.60
% Volatile by Volume: <1%
Evaporation Rate: Not established
Solubility in Water: Negligible

SECTION 4: FIRE & EXPLOSION DATA

Flash Point: >200°F (TCC Method)
DOT Flammability Classification: Non-Flammable
Extinguishing Media: Foam, CO₂, Dry Chemical
Special Fire Fighting Procedures:

The use of self-contained breathing apparatus is recommended for fire fighters. Water may be helpful in keeping adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes.

Unusual Fire & Explosion Hazards: Keep work areas free of hot metal surfaces and other sources of ignition.

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SECTION 5: HEALTH HAZARD DATA

EYES: Causes irritation and may cause burns.
SKIN: Prevent all skin contact. May cause injury to skin following prolonged or repeated contact. The phenol derivative component of this compound is a SPI Class 5 irritant. Repeated exposure may cause sensitization of the individual.
INHALED: Excessive inhalation is likely to cause irritation of mucous membranes.
INGESTION: Physical properties suggest that this route of exposure to be extremely unlikely. Oral toxicity not available on compound. Seek immediate medical attention.
SYSTEMIC AND OTHER EFFECTS: Product can be alkaline, corrosive, and irritating to skin, ears, eyes, and mucous membranes. May cause injury upon prolonged contact and repeated contact.

SPECIAL PROTECTION INFORMATION

EYE PROTECTION: Use safety glasses with side shields, or face mask.
RESPIRATORY PROTECTION: To avoid overexposure, wear an approved NIOSH/MSHA air-purifying respirator.
VENTILATION: General mechanical ventilation is sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.
PROTECTIVE GLOVES: Use neoprene or other chemically resistant gloves.
OTHER PROTECTIVE EQUIPMENT: Wear clean, long-sleeved, body-covering clothing.

SECTION 6: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush with large quantities of water for at least minutes. Consult a physician.
SKIN CONTACT: Wash immediately with soap and water. If irritation sensitization occurs, remove individual from further contact with material.
INHALATION: Remove to fresh air if effects occur. Consult physician.
INGESTION: If this product is swallowed, seek immediate medical attention.

SECTION 7: REACTIVITY DATA

Hazardous Polymerization: Will not occur
Stability: Stable.
Incompatibility: Strong acids and bases, selected epoxy resins, and strong oxidizing agents.
Hazardous Decomposition Products: Thermal decomposition in presence of air may yield carbon monoxide and carbon dioxide.

SECTION 8: SPILL OR LEAK PROCEDURES

Precautions in case of Release or Spill: Keep sources of ignition and hot metal surfaces isolated from the spill. Material may flow slowly. Scrape into containers for disposal.

Waste Disposal Methods: Dispose of according to all local, state and federal regulations

SECTION 9: STORAGE AND SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Keep containers closed when not in use. Avoid prolonged or repeated contact with skin. DO NOT handle or store near flame, heat or strong oxidants. Do not store in direct sunlight. Avoid prolonged storage above 38°C (100°F)

SECTION 10: DISCLAIMER

The information presented here is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need, that the information is current, applicable and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

AMERICAN CHEMICAL CORP.

JNT

A-6

Section I

Manufacturer's Name:

AMERICAN CHEMICAL CORP.
5231 Northrup Ave.
St. Louis, MO 63110

Emergency Telephone No.

(314) 664-2403

Trade Name:

Aquatapoxy Coating - Part B

Product #35-137

Chemical Family:

AMINE

VOLANS INDUSTRIAL CONTROLS, INC.
 P.O. Box 500
 Channelview, TX 77530
 (713) 452-5040 (800) 392-5459

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	PEL	CAS NUMBER	PERCENT	PPM	TLV
Silica*	20 mg/m ³	7631-86-9	62-67		mg/m ³ 10
*Hazardous as dust only.					
SARA Title III, Section 313 ingredients: None.					

Section IIA — NON-HAZARDOUS INGREDIENTS

INGREDIENT	CAS NUMBER
Cycloaliphatic Amine	N/A
Aliphatic Polyamine	90-72-2

Section III — PHYSICAL DATA

BOILING POINT (°F):	>200° F.	EVAPORATION RATE:	Not established.
SOLUBILITY IN WATER:	Negligible.	VAPOR PRESSURE:	Not applicable.
SPECIFIC GRAVITY:	1.60	VAPOR DENSITY:	Not applicable.
% VOLATILE BY VOLUME:	<1%		
APPEARANCE AND ODOR:	Heavy paint to mastic consistency. Bland odor.		

Section IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	>200 deg. F. (TCC Method).	FLAMMABLE LIMITS:	Not established.
EXTINGUISHING MEDIA:	Foam, CO ₂ or dry chemical.		

Section V — EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:	Immediately flush with large quantities of water for at least 15 minutes. Consult a physician.
SKIN CONTACT:	Wash immediately with soap and water. If irritation or sensitization occurs, remove individual from further contact with material.
INHALATION:	Remove to fresh air if effects occur. Consult a physician.
INGESTION:	If this product is swallowed, seek immediate medical attention.

Section VI — PHYSIOLOGICAL EFFECTS AND HEALTH INFORMATION

SKIN EFFECTS:	Causes irritation and may cause burns.
INGESTION:	Prevent all skin contact. May cause injury to skin following prolonged or repeated contact. The phenol derivative component of this compound is a SPI Class 5 irritant. Repeated exposure may cause sensitization of the individual.
INHALATION:	Physical properties suggest that this route of exposure to be extremely unlikely. Oral toxicity not available on compound. Seek immediate medical attention.
SYSTEMIC AND OTHER EFFECTS:	Excessive inhalation is likely to cause irritation of mucous membranes.
	Product can be alkaline, corrosive, and irritating to skin, ears, eyes, and mucous membranes. May cause injury upon prolonged contact and repeated contact.

Section VII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	To avoid overexposure, wear an approved NIOSH/MSHA air-purifying respirator.
VENTILATION:	General mechanical ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.
PROTECTIVE GLOVES:	Use neoprene or other chemically resistant gloves.
EYE PROTECTION:	Use safety glasses with side shields, or face mask.
OTHER PROTECTIVE EQUIPMENT:	Wear clean, long-sleeved, body-covering clothing.

Section VIII — REACTIVITY DATA

STABILITY:	Stable.	HAZARDOUS POLYMERIZATION:	Will not occur.
COMPATIBILITY: (materials to avoid)	Strong acids and bases, selected epoxy resins, and strong oxidizing agents.		
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, and nitrogen compounds.		

Section IX — SPILL OR LEAK PROCEDURES

PRECAUTIONS IN CASE OF RELEASE OR SPILL:	Keep sources of ignition and hot metal surfaces isolated from the spill. Material may flow slowly. Scrape into containers for disposal.
WASTE DISPOSAL METHODS:	Dispose of according to all local, state and federal regulations.

Section X — STORAGE AND SPECIAL PRECAUTIONS

DOT FLAMMABILITY CLASSIFICATION:	Non-flammable.
EXTINGUISHING MEDIA:	Foam, CO ₂ or dry chemical.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	May form toxic materials, carbon monoxide, carbon dioxide, and nitrogen compounds.
SPECIAL FIRE FIGHTING PROCEDURES:	The use of self-contained breathing apparatus is recommended for fire fighters. Water may be helpful in keeping adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes.
PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:	Keep containers closed when not in use. Avoid prolonged or repeated contact with skin. DO NOT handle or store near flame, heat or strong oxidants. Do not store in direct sunlight. Store in cool dry area. Avoid prolonged storage above 36 deg. C. (100 Deg. F.).

SECTION XI — DISCLAIMER

The information presented here is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need, that the information is current, applicable and suitable to their needs.

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OF POOR QUALITY

Candidate Coatings		Manufacturer's Product Data and Recommendations					
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mil)	Vol. Solids %	Abrasive used	Appl Equip
American Chemical Aquatapoxy A amine epoxy Vickers Ind. Ctg (dist)	SP-5	2	2	6 to 8	100%	Alum. Oxide (24)	B,R,P
DO NOT THIN							

Panel ISS= 739-760 Alum= 761-782 Coupled= 783-796 CPVC= 797-814

Panel #/Tag	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 739	2.5	24.1	32.9	24	32	24	32	26.2
SS 740		29.1	35.9	27.4	34.7	28.9	34.9	31.8
SS 741		16.6	31.5	16.5	31.7	16.3	31.7	24.1
SS 742		15.7	11	16.1	11.1	15.9	11	13.5
SS 743		13.9	9.4	13.9	9	13.8	8.9	11.5
SS 744	2.5	30.8	36	31.1	35.9	31.5	36.1	33.6
SS 745		20.5	26.4	20.1	25.9	20.4	28.7	23.7
SS 746		12.1	16.3	12.2	16.6	11.8	16.5	14.3
SS 747		11.9	27.6	12.6	27.3	12.3	27.6	19.9
SS 748		19.9	11.7	19.6	11.2	19.6	11.3	15.6
SS 749	2.2	41.4	30.5	41.7	30.3	41.8	30.2	36.0
SS 750		23.9	24.3	23.6	24.5	22.9	24.3	23.9
SS 751		18.4	25.9	18.5	26.6	18.5	26.9	22.5
SS 752		7.9	10.5	7.9	10	7.8	9.9	9.0
SS 753		16.8	11.9	16.7	11.3	16.5	13.1	14.4
SS 754	2.4	32.2	30	32.3	30.9	32.8	30.5	31.5
SS 755		20.2	28.6	20.4	28.7	20.3	28.6	24.5
SS 756		22.6	13.7	24.2	13.4	23.6	13.2	18.5
SS 757		28.3	18	28.6	18.6	28.2	18.2	23.3
SS 758		20.3	14.3	20.4	14.2	21.3	14.2	17.5
SS 759	2.2	22.8	30.9	22.8	30.1	22.2	30	26.5
SS 760		10.1	28.7	10.2	28.4	9	28.1	19.1
ALUM 761	2.8	29.8	28.4	29.8	28.1	30	28.3	29.1
ALUM 762		26.1	30.2	25.5	30.6	25.9	30.1	28.1
ALUM 763		14.7	27.5	15	27	14.9	27.1	21.0
ALUM 764		10.7	25.8	11	26.3	10.9	26	18.5
ALUM 765		13.6	17	13.3	17.2	13.5	17.1	15.3
ALUM 766	2.8	25.5	39.1	25.5	39	25.4	39	32.3
ALUM 767		13.3	21.5	12.8	22.2	12.9	21.8	17.4
ALUM 768		22.7	11	22.5	11.2	22.6	11.1	16.9
ALUM 769		15.9	14.9	15.6	14.2	15.9	15.1	15.3
ALUM 770		25.3	37	24.8	36.9	25.4	36.6	31.0
ALUM 771	2.9	27	37.5	27.3	37.1	27	37.6	32.3
ALUM 772		10.7	10.7	10	10.4	10.6	10.4	10.5
ALUM 773		7.7	18.7	7	18.1	7.6	18.7	13.0
ALUM 774		30.5	21.7	30.6	21.4	30	21.3	25.9
ALUM 775		10.5	9.4	10.8	9.4	10.7	9.3	10.0
ALUM 776		24.5	24.5	24.8	24.8	24.7	24.3	24.6
ALUM 777		15.7	12.5	15.5	12.4	15.5	12.3	14.0
ALUM 778		20.2	22.1	20.1	21.7	20.3	21.9	21.1
ALUM 779		23.4	21.2	24.5	21.2	24.4	21.4	22.7
ALUM 780		21.3	18.7	21.2	18.5	21.3	18.6	19.9
ALUM 781	2.8	14.8	27.2	14.8	26.8	147.9	27	43.1
ALUM 782		21.8	9.8	21	11.9	21.5	10.7	16.1

SS CPL	783	2.4	18.6	16.5	21.4	16.1	20.9	13.8	17.9
AL CPL	783	2.7	9.1	10.1	6.3	10.8	6.6	8.4	8.6
SS CPL	784		20	21.7	17.7	22.1	18	23.9	20.0
AL CPL	784		12.5	20	12.8	18.7	12.1	19.1	15.9
SS CPL	785		23.7	16.6	23.7	15.7	23.9	14.9	19.8
AL CPL	785		12.8	19.1	12.6	18.7	13	18.8	15.8
SS CPL	786		22.1	14.4	20.3	16	21.4	15.9	18.4
AL CPL	786		9.4	12.1	10.3	14.4	10	11.3	11.3
SS CPL	787		26	30.4	29.2	27	31.5	24	28.0
AL CPL	787		10.7	11.5	8.8	11	8.7	11	10.3
SS CPL	788	2.3	19.3	17.2	19.3	16.7	19	14.2	17.6
AL CPL	788	2.4	9.8	10.6	11.1	10.6	9.8	10.7	10.4
SS CPL	789		19.4	27.8	21	27.7	21.8	28.1	24.3
AL CPL	789		8.3	9.2	9	9.4	8.3	9.8	9.0
SS CPL	790		28.8	28.2	30.1	26.8	29.2	25.4	28.1
AL CPL	790		17.1	8.6	15.3	17	16.9	20.8	16.0
SS CPL	791		23.7	26.1	23.6	24.4	21.6	26.2	24.3
AL CPL	791		5	23.7	5.7	22.8	5.8	23.7	14.5
SS CPL	792		26.1	19.6	25.4	19.7	29.7	19.6	23.4
AL CPL	792		8.8	12.2	9.2	8.7	8.4	12.2	9.9
SS CPL	793	2.1	17.9	14.6	17.4	14.1	15.8	13.9	15.6
AL CPL	793	2.6	13.8	11.1	13.3	18.4	13.8	10.5	13.5
SS CPL	794		18.5	24.3	18.3	24.3	14.4	22.7	20.4
AL CPL	794		14.6	10.2	11	6.7	9	8	9.9
SS CPL	795		36.7	25.3	36.7	25.2	36.8	25.9	31.1
AL CPL	795		11.8	14.9	11.4	11.9	12.5	11.9	12.4
SS CPL	796		16.6	18.4	18.5	17.2	15.9	16.8	17.2
AL CPL	796		10.5	11.5	9.4	12.7	11.9	11.8	11.3
CPVC	797		169	154	41	26	33.5	16.75	16.8
CPVC	798		155	156	27	28	27.5	13.75	13.8
CPVC	799		159	167	31	39	35	17.5	17.5
CPVC	800		165	161	37	33	35	17.5	17.5
CPVC	801		156	154	28	26	27	13.5	13.5
CPVC	802		174	160	46	32	39	19.5	19.5
CPVC	803		156	157	28	29	28.5	14.25	14.3
CPVC	804		166	154	38	26	32	16	16.0
CPVC	805		149	163	21	35	28	14	14.0
CPVC	806		149	160	21	32	26.5	13.25	13.3
CPVC	807		164	168	36	40	38	19	19.0
CPVC	808		164	165	36	37	36.5	18.25	18.3
CPVC	809		156	167	28	39	33.5	16.75	16.8
CPVC	810		148	156	20	28	24	12	12.0
CPVC	811		165	156	37	28	32.5	16.25	16.3
CPVC	812		148	171	20	43	31.5	15.75	15.8
CPVC	813		150	143	22	15	18.5	9.25	9.3
CPVC	814		157	158	29	30	29.5	14.75	14.8
Adh	815		6.2	13.1	8.3	12.7	5.4	12.9	9.8
Adh	816		6.7	14.2	9.6	9.7	8.7	12.9	10.3
Tabor	817		11.2	13.9	11.3	12.5	10.4	13.1	12.1
Tabor	818		17.7	10.9	15.6	21.2	13.2	19.9	16.2
Impac	819		12.3	19	12.4	20.9	12	19.9	16.1
Impac	818		27.4	9.9	27	14.7	28.6	13.8	20.2

average 18.8 20.5 18.8 20.5 20.0 20.3 18.7

Summary of Work Performed: Aquatopox (Repair)

PRE-SURFACE PREPARATION

S U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)			
Batch Numbers (Record)	A) 102593 B) 21594		
Material Temperature/Potlife (Record)	73°		
Correct Thinner/Amount (Record)	—		
Time of Mix (Record)	11:30		
Mix Ratio (Record)	1:1		
Induction Period (Record)	—		

APPLICATION

Ambient Conditions (Record)	DB: 74° WB: 64° RH: 58% DP: 59° ST:		
Applicator's Name (Record)	C. Poche		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	11:55		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness		✓	
Proper Pot Agitation			
Application Equipment (Record)	Brush/roll stick.		
Time Application Complete (Record)	11:50		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: Panel 759 stainless
 777 Alum.
 811 PVC Application
 Applied under water.

Inspector: C. Poche
 Date: 5/1/94
 Report No.
 Page 01

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JOB NO: H-6341

Summary of Work Performed: Apply Aquatapoxy to edges

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg/Product Name (Record)	Aquatapoxy		
Batch Numbers (Record)	A-102593 / B-31594		
Material Temperature/Potlife (Record)	40 min		
Correct Thinner/Amount (Record)	NONE		
Time of Mix (Record)	12:45		
Mix Ratio (Record)	1:1		
Induction Period (Record)	NONE		

APPLICATION

Ambient Conditions (Record)	DB: 73°F WB: 62°F RH: 53% DP: 55°F ST: 69°F		
Applicator's Name (Record)	R. Baggett & Chris Locke		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness	NA		
Time Application Began (Record)	12:50		
Surrounding Air Cleanliness		✓	
Recoat Times Observed (Record Actual)		✓	
Intercoat Cleanliness		✓	
Proper Pot Agitation	NA		
Application Equipment (Record)	Brush		
Time Application Complete (Record)	1:30 pm		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: Lost 50% viscosity @ Endless.
 Pulled away from edges again.
 Product was wiped off w/ Xylene.

Inspector:
 Date: 4/19/94
 Report No.
 Page of

Summary of Work Performed:

Apply Aquatapoxy 1st coat Back side

PRE-SURFACE PREPARATION

S

U

Condition of Edges, Weld Spatter, Etc.			
Grease/Oil Removal (Record Solvent)			
Clean Dry Abrasive			
Recycled Abrasive Test			
Nozzle Air Pressure (Record)			
Compressed Air Cleanliness (Record)			

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfg./Product Name (Record)	<i>Aquatapoxy</i>		
Batch Numbers (Record)	<i>A-102593 / B-31594</i>		
Material Temperature/Potlife (Record)	<i>75°F</i>	<i>40min.</i>	
Correct Thinner/Amount (Record)	<i>None</i>		
Time of Mix (Record)	<i>2:35</i>	<i>3:20 pm</i>	
Mix Ratio (Record)	<i>1:1</i>		
Induction Period (Record)	<i>None</i>		

APPLICATION

Ambient Conditions (Record)	DB: <i>76°F</i> WB: <i>66°F</i> RH: <i>59%</i> DP: <i>60°F</i> ST: <i>75°F</i>		
Applicator's Name (Record)	<i>R. Baggett & Chris Pache</i>		
Surface Prep. to Appl. (Record Time)			
Compressed Air Cleanliness			
Time Application Began (Record)	<i>2:40</i>	<i>3:30 pm</i>	
Surrounding Air Cleanliness			
Recoat Times Observed (Record Actual)			
Intercoat Cleanliness			
Proper Pot Agitation			
Application Equipment (Record)	<i>Brush</i>		
Time Application Complete (Record)	<i>3:00 pm</i>	<i>3:50 pm</i>	

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	See DFT Tables		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS:

Inspector: *R. Baggett*Date: *4/1/94*

Report No.

Page *01*

DAILY INSPECTION REPORT/TEST PANEL RECORD (STEEL)

CLIENT: NASA

JOB NO: H-6341

Summary of Work Performed: Apply Aquatapoxy 1st coat (one side)

PRE-SURFACE PREPARATION

	S	U
Condition of Edges, Weld Spatter, Etc.		
Grease/Oil Removal (Record Solvent)		
Clean Dry Abrasive		
Recycled Abrasive Test		
Nozzle Air Pressure (Record)		
Compressed Air Cleanliness (Record)		

SURFACE PREPARATION

Ambient Conditions (Record)	DB:	WB:	RH:	DP:	ST:
Degree of Cleanliness (Record)					
Profile (Record)					
Type and Size Abrasive (Record)					
Dust and Abrasive Removal					
Magnetic Base Reading (Record)					

MIXING

Mfr/Product Name (Record)	<u>Aquatapoxy</u>		
Batch Numbers (Record)	<u>A-102583 / B-34584</u>		
Material Temperature/Potlife (Record)	<u>75°F</u>	<u>40 min</u>	
Correct Thinner/Amount (Record)	<u>None</u>		
Time of Mix (Record)	<u>7:10p</u>	<u>8:05p</u>	<u>8:55p</u>
Mix Ratio (Record)	<u>1:1</u>		
Induction Period (Record)	<u>None</u>		

APPLICATION

Ambient Conditions (Record)	DB: <u>75°F</u>	WB: <u>65°F</u>	RH: <u>58%</u>	DP: <u>59°F</u>	ST: <u>72°F</u>
Applicator's Name (Record)					
Surface Prep. to Appl. (Record Time)					
Compressed Air Cleanliness					
Time Application Began (Record)	<u>7:15p</u>	<u>8:10p</u>	<u>9:00p</u>		
Surrounding Air Cleanliness					
Recoat Times Observed (Record Actual)					
Intercoat Cleanliness					
Proper Pot Agitation					
Application Equipment (Record)	<u>Brush</u>				
Time Application Complete (Record)	<u>7:35</u>	<u>8:30</u>	<u>9:20</u>		

INSPECTION

Visual Appearance			
Dry Film Thickness (DFT)	<u>See DFT Tables</u>		
Holiday Test (Record Method)			
Cure Test (Record Method)			

REMARKS: Difficult to apply, approx
20 min. working time.

Inspector: R. Baggett
 Date: 4/1/94
 Report No. 194
 Page 01

Aqualapox

Coating System		NASA H6341		Panel Profiles	
Panel/Tag #	Front	Front	Front	Back	
<i>SS-739</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>SS-744</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>SS-749</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>SS-754</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>S-759</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>A - 761</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>A - 766</i>	PRESS-O-FILM™ No. _____ Mils. <u>3.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>A - 771</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>3.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		
<i>A - 776</i>	PRESS-O-FILM™ No. _____ Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. _____ Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)		

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Agualapoxy

Coating System

NASA H6341

Panel Profiles

Panel/Tag #	Front	Front	Back
<i>A-781</i>	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>SS 783</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>A 783</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.8</u> Mils. <u>2.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.9</u> Mils. <u>2.9</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>SS 788</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.0</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>1.8</u> Mils. <u>1.8</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>A 788</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.4</u> Mils. <u>2.4</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.6</u> Mils. <u>2.6</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.2</u> Mils. <u>2.2</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>SS 793</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.3</u> Mils. <u>2.3</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.1</u> Mils. <u>2.1</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.0</u> Mils. <u>2.0</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)
<i>A 793</i> <i>CPL</i>	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.7</u> Mils. <u>2.7</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)	PRESS-O-FILM™ No. <u>2.5</u> Mils. <u>2.5</u> Gage less 2.0 Testex, Inc. Newark, DE 19715 X COARSE (1.5-4.5)

Candidate Coatings		Manufacturer's Product Data and Recommendations					
Manufacturer Product	Surface Prep	Profile mils	Coats #	DFT, ea. (mid)	Vol. Solids %	Abrasive used	Appl Equip
American Chemical Aquatapoxy A amine epoxy	SP-5	2	2	6 to 8	100%	Alum. Oxide (24)	B.R.P
Vickers Ind. Ctg (dist)		DO NOT THIN					

4-25-94

Panel ISS= Alum= Coupled= CPVC=

Panel #/Tag	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SS 739		24.1	32.9	24.0	32.0	24.0	32.0	#DIV/0!
SS 740		29.1	35.9	27.4	34.7	28.9	34.9	#DIV/0!
SS 741		16.6	31.5	16.5	31.7	16.3	31.7	#DIV/0!
SS 742		15.7	11.0	16.1	11.1	15.9	11.0	#DIV/0!
SS 743		13.9	9.4	13.9	9.0	13.8	8.9	#DIV/0!
SS 744		30.8	36.0	31.1	35.9	31.5	36.1	#DIV/0!
SS 745		20.5	26.4	20.1	25.9	20.4	28.7	#DIV/0!
SS 746		12.1	16.3	12.2	16.6	11.8	16.5	#DIV/0!
SS 747		11.9	27.6	12.6	27.3	12.3	27.6	#DIV/0!
SS 748		19.9	11.7	19.6	11.2	19.6	11.3	#DIV/0!
SS 749		41.4	30.5	41.7	30.3	41.8	30.2	#DIV/0!
SS 750		23.9	24.3	23.6	24.5	22.9	24.3	#DIV/0!
SS 751		18.4	25.9	18.5	26.6	18.5	26.9	#DIV/0!
SS 752		7.9	10.5	7.9	10.0	7.8	9.9	#DIV/0!
SS 753		16.8	11.9	16.7	11.3	16.5	13.1	#DIV/0!
SS 754		32.2	30.0	32.3	30.9	32.8	30.5	#DIV/0!
SS 755		20.2	28.6	20.4	28.7	20.3	28.6	#DIV/0!
SS 756		22.6	13.7	24.2	13.4	23.6	13.2	#DIV/0!
SS 757		28.3	18.0	28.8	18.8	28.2	18.2	#DIV/0!
SS 758		20.3	14.3	20.4	14.2	21.3	14.2	#DIV/0!
SS 759		22.8	30.9	22.8	30.1	22.2	30.0	#DIV/0!
SS 760		10.1	28.7	10.2	28.4	9.0	28.1	#DIV/0!
ALUM 761		29.8	28.4	29.8	28.1	30.0	28.3	#DIV/0!
ALUM 762		26.1	30.2	25.5	30.6	25.9	30.1	#DIV/0!
ALUM 763		14.7	27.5	15.0	27.0	14.9	27.1	#DIV/0!
ALUM 764		10.7	25.8	11.0	26.3	10.9	26.0	#DIV/0!
ALUM 765		13.6	17.0	13.3	17.2	13.5	17.1	#DIV/0!
ALUM 766		25.5	39.1	25.5	39.0	25.4	39.0	#DIV/0!
ALUM 767		13.3	21.5	12.8	22.2	12.9	21.8	#DIV/0!
ALUM 768		22.7	11.0	22.5	11.2	22.6	11.1	#DIV/0!
ALUM 769		15.9	14.9	15.6	14.2	15.9	15.1	#DIV/0!

Panel #/Tag	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
ALUM 770		25.3	37.0	24.8	36.9	25.4	36.6	#DIV/0!
ALUM 771		27.0	37.5	27.3	37.1	27.0	37.6	#DIV/0!
ALUM 772		10.7	10.7	10.0	10.4	10.6	10.4	#DIV/0!
ALUM 773		7.7	18.7	7.0	18.1	7.6	18.7	#DIV/0!
ALUM 774		30.5	21.7	30.6	21.4	30.0	21.3	#DIV/0!
ALUM 775		10.5	9.4	10.8	9.4	10.7	9.3	#DIV/0!
ALUM 776		24.5	24.5	24.8	24.8	24.7	24.3	#DIV/0!
ALUM 777		15.7	12.5	15.5	12.4	15.5	12.3	#DIV/0!
ALUM 778		20.2	22.1	20.1	21.7	20.3	21.9	#DIV/0!
ALUM 779		23.4	21.2	24.5	21.2	24.4	21.4	#DIV/0!
ALUM 780		21.3	18.7	21.2	18.5	21.3	18.6	#DIV/0!
ALUM 781		14.8	27.2	14.8	26.8	14.9	27.0	#DIV/0!
ALUM 782		21.8	9.8	21.0	11.9	21.5	10.7	#DIV/0!
SS CPL 783		18.6	16.5	21.4	16.1	20.9	13.8	#DIV/0!
AL CPL 783		9.1	10.1	6.3	10.8	6.6	8.4	#DIV/0!
SS CPL 784		20.0	21.7	17.7	22.1	18.0	23.9	#DIV/0!
AL CPL 784		12.5	20.0	12.8	18.7	12.1	19.1	#DIV/0!
SS CPL 785		23.7	16.6	23.7	15.7	23.9	14.9	#DIV/0!
AL CPL 785		12.8	19.1	12.6	18.7	13.0	18.8	#DIV/0!
SS CPL 786		22.1	14.4	20.3	16.0	21.4	15.9	#DIV/0!
AL CPL 786		9.4	12.1	10.3	14.4	10.0	11.3	#DIV/0!
SS CPL 787		26.0	30.4	29.2	27.0	31.5	24.0	#DIV/0!
AL CPL 787		10.7	11.5	8.8	11.0	8.7	11.0	#DIV/0!
SS CPL 788		19.3	17.2	19.3	16.7	19.0	14.2	#DIV/0!
AL CPL 788		9.8	10.6	11.1	10.6	9.8	10.7	#DIV/0!
SS CPL 789		19.4	27.8	21.0	27.7	21.8	28.1	#DIV/0!
AL CPL 789		8.3	9.2	9.0	9.4	8.3	9.8	#DIV/0!
SS CPL 790		28.8	28.2	30.1	26.8	29.2	25.4	#DIV/0!
AL CPL 790		17.1	8.6	15.3	17.0	16.9	20.8	#DIV/0!
SS CPL 791		23.7	26.1	23.6	24.4	21.6	26.2	#DIV/0!
AL CPL 791		5.0	23.7	5.7	22.8	5.8	23.7	#DIV/0!
SS CPL 792		26.1	19.6	25.4	19.7	29.7	19.6	#DIV/0!
AL CPL 792		8.8	12.2	9.2	8.7	8.4	12.2	#DIV/0!
SS CPL 793		17.9	14.6	17.4	14.1	15.8	13.9	#DIV/0!
AL CPL 793		13.8	11.1	13.3	18.4	13.8	10.5	#DIV/0!

Panel #/Tag	Surface Profile	1F DFT	2F DFT	1F DFT	2F DFT	1F DFT	2F DFT	Average DFT
SSCPI 794		18.5	24.3	18.3	24.3	14.4	22.7	#DIV/0!
AL CP 794		14.0	16.2	11.0	8.7	9.9	18.0	#DIV/0!
SSCPI 795		36.7	26.8	36.7	25.2	36.8	25.9	#DIV/0!
AL CP 795		21.8	14.9	11.4	11.9	12.5	11.9	#DIV/0!
SSCPI 796		15.6	18.4	18.6	17.2	15.9	15.8	#DIV/0!
AL CP 796		10.5	11.5	9.4	12.7	11.9	11.8	#DIV/0!
CPVC 797		16.9	15.4					#DIV/0!
CPVC 798		15.5	15.6					#DIV/0!
CPVC 799		15.9	16.7					#DIV/0!
CPVC 800		16.5	16.1					#DIV/0!
CPVC 801		15.6	15.4					#DIV/0!
CPVC 802		17.4	16.0					#DIV/0!
CPVC 803		15.6	15.7					#DIV/0!
CPVC 804		16.6	15.4					#DIV/0!
CPVC 805		14.9	16.3					#DIV/0!
CPVC 806		14.9	16.0					#DIV/0!
CPVC 807		16.4	16.8					#DIV/0!
CPVC 808		16.4	16.5					#DIV/0!
CPVC 809		15.6	16.7					#DIV/0!
CPVC 810		14.8	15.6					#DIV/0!
CPVC 811		16.5	15.6					#DIV/0!
CPVC 812		14.8	17.1					#DIV/0!
CPVC 813		15.0	14.3					#DIV/0!
CPVC 814		15.7	15.8					#DIV/0!
Adh 815		6.2	13.1	8.3	12.7	5.4	12.9	#DIV/0!
Adh 816		6.7	14.2	9.6	9.7	8.7	12.9	#DIV/0!
Tabor 817		11.2	13.9	11.3	12.5	10.4	13.1	#DIV/0!
Tabor 818		17.7	10.9	15.6	21.2	13.2	19.9	#DIV/0!
Impac 819		18.3	19.0	12.4	20.9	12.0	19.9	#DIV/0!
Impac 820		27.4	9.9	27.0	14.7	28.6	13.8	#DIV/0!

APPENDIX B

Coating Material Infrared Spectra

Infrared Spectra were obtained for the coating materials employed in this project. Spectra included are for the individual components of two-part coatings and the mixed, applied coating materials. An index of spectra are provided followed by the individual spectra and associated data divided by System number.

List of Spectra

- Spectrum 1. System 1. PF-112 Plastic Flame Coat**
- Spectrum 2. System 1. PF-112 Plastic Flame Coat Touchup Material**
- Spectrum 3. System 2. NSP 120 Part A and Part B Combined as Cured**
- Spectrum 4. System 2. NSP 120 Part A**
- Spectrum 5. System 2. NSP 120 Part A Extracted into Toluene**
- Spectrum 6. System 2. NSP 120 Part B**
- Spectrum 7. System 2. NSP 120 Part B Extracted into Toluene**
- Spectrum 8. System 3. Devran 230 Part A and Part B Combined as Cured**
- Spectrum 9. System 3. Devran 230 Part A**
- Spectrum 10. System 3. Devran 230 Part A Extracted into Toluene**
- Spectrum 11. System 3. Devran 230 Part B**
- Spectrum 12. System 4. Undercoat Carbomastic 15 Part A and Part B Combined as Cured**
- Spectrum 13. System 4. Undercoat. Carbomastic 15 Part A Extracted into Toluene**
- Spectrum 14. System 4. Undercoat. Carbomastic 15 Part B Stirred Material**
- Spectrum 15. System 4. Undercoat. Carbomastic 15 Part B Material from Top of Can**
- Spectrum 16. System 4. Topcoat. Carboline 890 Part A and Part B as Cured.**
- Spectrum 17. System 4. Topcoat. Carboline 890 Part A**
- Spectrum 18. System 4. Topcoat. Carboline 890 Part A Extracted into Toluene**
- Spectrum 19. System 4. Topcoat. Carboline 890 Part B**
- Spectrum 20. System 4. Topcoat. Carboline 890 Part B not mixed. Material from top of can.**

Spectrum 21. System 5. Sherwin Williams Hi Solids Part A and Part B Combined as Cured

Spectrum 22. System 5. Sherwin Williams Hi Solids Part A

Spectrum 23. System 5. Sherwin Williams Hi Solids Part A not mixed. Material from top of can.

Spectrum 24. System 5. Sherwin Williams Hi Solids Part B

Spectrum 25. System 6. UT Plast

Spectrum 26. System 7. UT Plast Super, part of UT Plast Super Aluminized UT Plast

Spectrum 27. System 8. Elite

Spectrum 28. System 9. Plasite Part A and Part B Combined as Cured.

Spectrum 29. System 9. Plasite Part A.

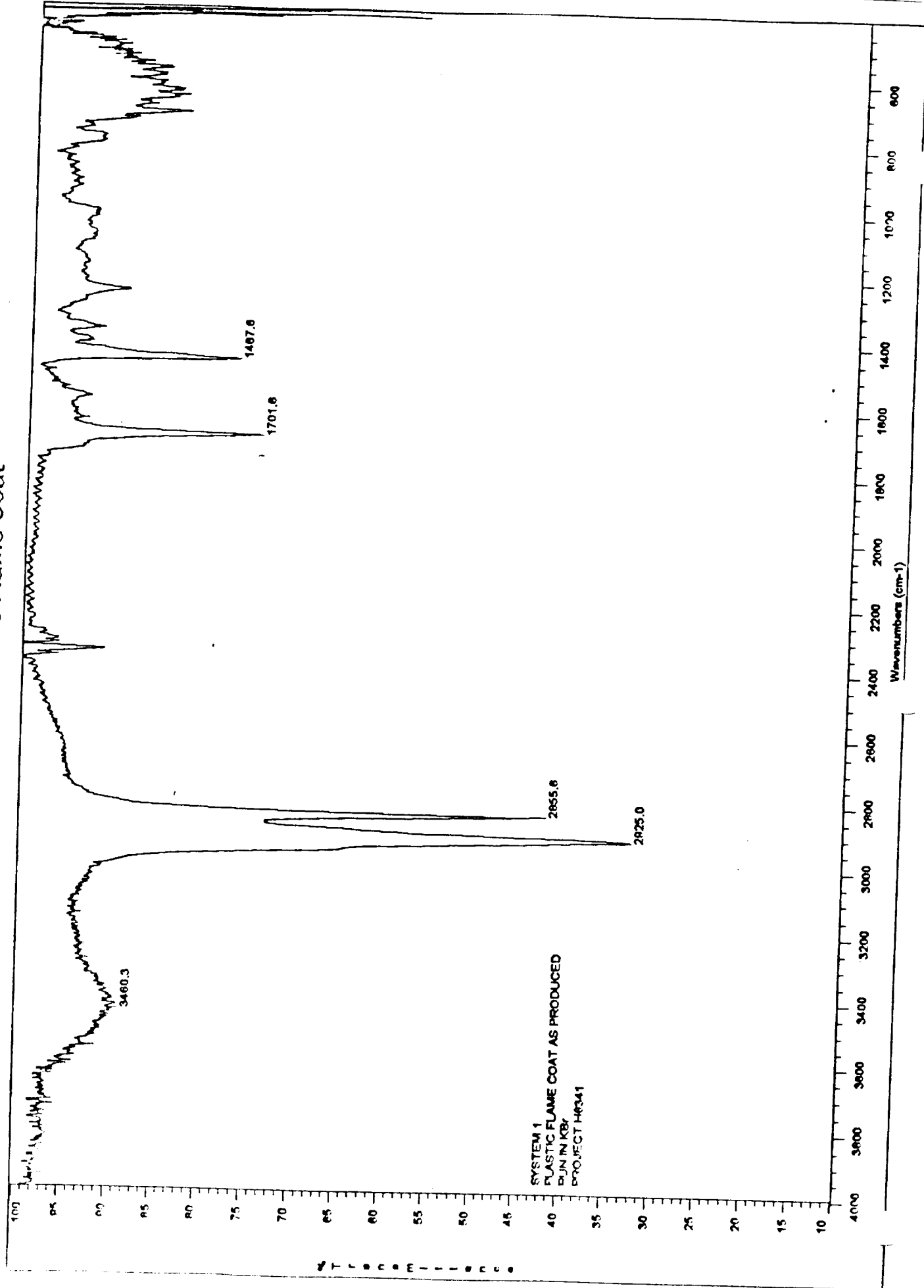
Spectrum 30. System 9. Plasite Part B (Catalyst)

Spectrum 31. System 10. Aquatapoxy Part A and Part B Combined as Cured.

Spectrum 32. System 10. Aquatapoxy Part A.

Spectrum 33. System 10. Aquatapoxy Part B.

Spectrum 1. System 1. PF-112 Plastic Flame Coat



COLLECTION AND PROCESSING INFORMATION

Title: system 1
 Collected: Thu Sep 15 08:43:09 1994
 File name: A:\pf 2.spa
 Comments: PLASTIC FLAME COAT AS PRODUCED
 BY IN KRC
 PROJECT 40041

DATA COLLECTION INFORMATION

Number of sample scans: 32
 Collection length: 47.5 sec
 Resolution: 3.875
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 988
 Apodization: Happ-Genzel
 Number of background scans: 32
 Background gain: 16.0

DATA DESCRIPTION

Number of points: 1668
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: J2
 Detector: DTGS KRC
 Accessory: 1
 Beam splitter: KRC
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 32.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
 Background collected on Thu Sep 15 08:38:00 1994
 Final format: Transmittance
 Resolution: 3.875 from 399.2414 to 4000.1284

Automatic Baseline Correct on Thu Sep 15 08:47:17 1994

Data format: Absorbance
 Corrected from 4000.0000 to 4000.0000

Baseline Correct on Sun Sep 25 21:13:19 1994

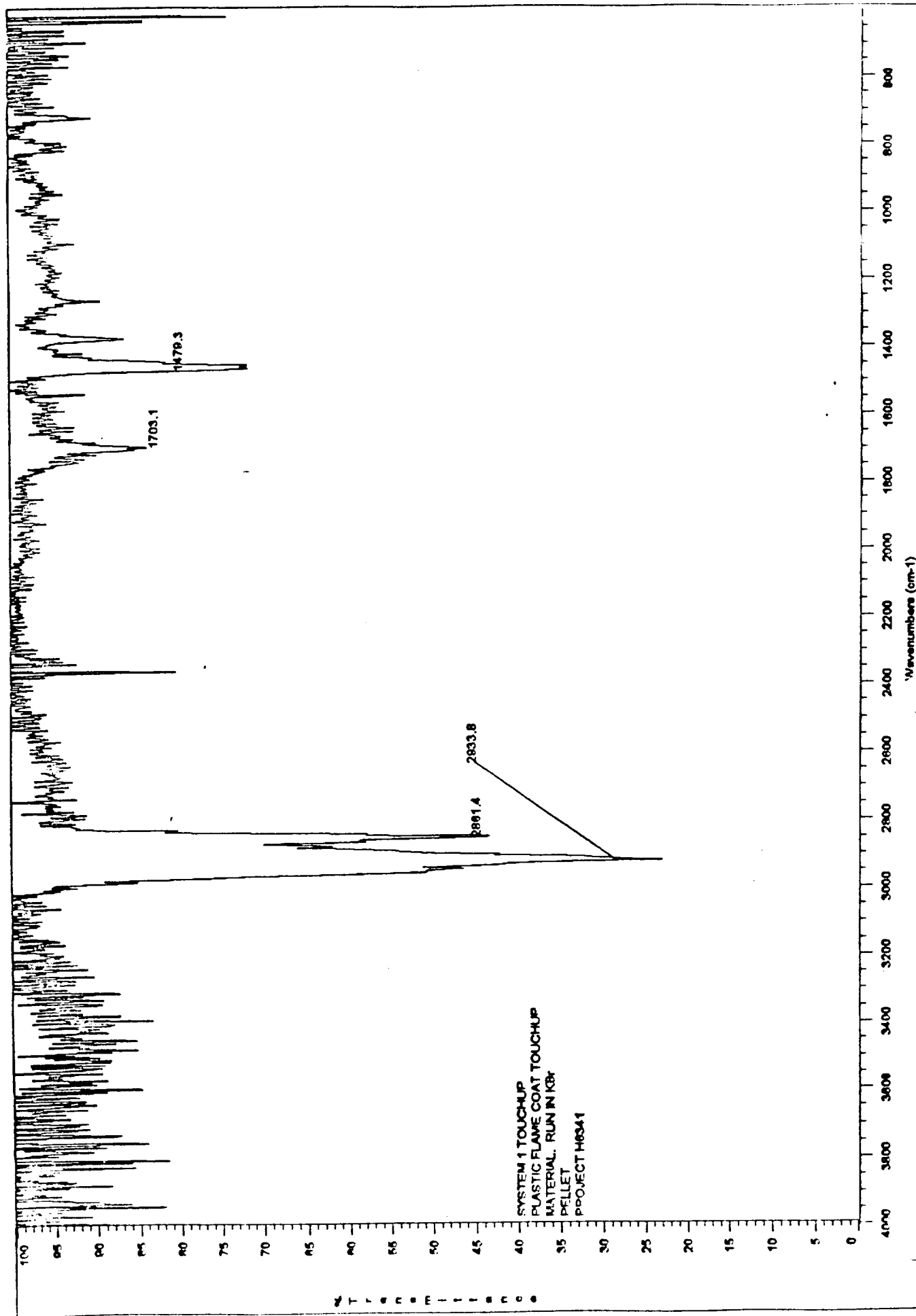
Data format: Absorbance

Correction points: 13

-0.0178 at 399.2414
 0.0505 at 411.3047
 -0.0267 at 471.6211
 -0.0178 at 1509.0625
 -0.0267 at 1822.7078
 -0.0208 at 2275.0806
 -0.0148 at 2705.2385
 0.0178 at 2735.3967
 0.0148 at 2771.5864
 -0.0148 at 2777.6182
 -0.0208 at 2407.7764
 -0.0208 at 4000.1284
 -0.0208 at 4000.1284

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Spectrum 2. System 1. PF-11 Plastic Flame Coat Touchup Material



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 1 TOUCHUP
Collected: Wed Sep 14 14:53:43 1994
File name: A:\PFTOUCH.SPA
Comments: PLASTIC FLAME COAT TOUCHUP
MATERIAL. RUN IN KBr
PELLET
PROJECT H6341

DATA COLLECTION INFORMATION

Number of sample scans: 32
Collection length: 23.4 sec
Resolution: 3.875
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm⁻¹
Interferogram peak position: 986
Apodization: Happ-Genzel
Number of background scans: 32
Background gain: 16.0

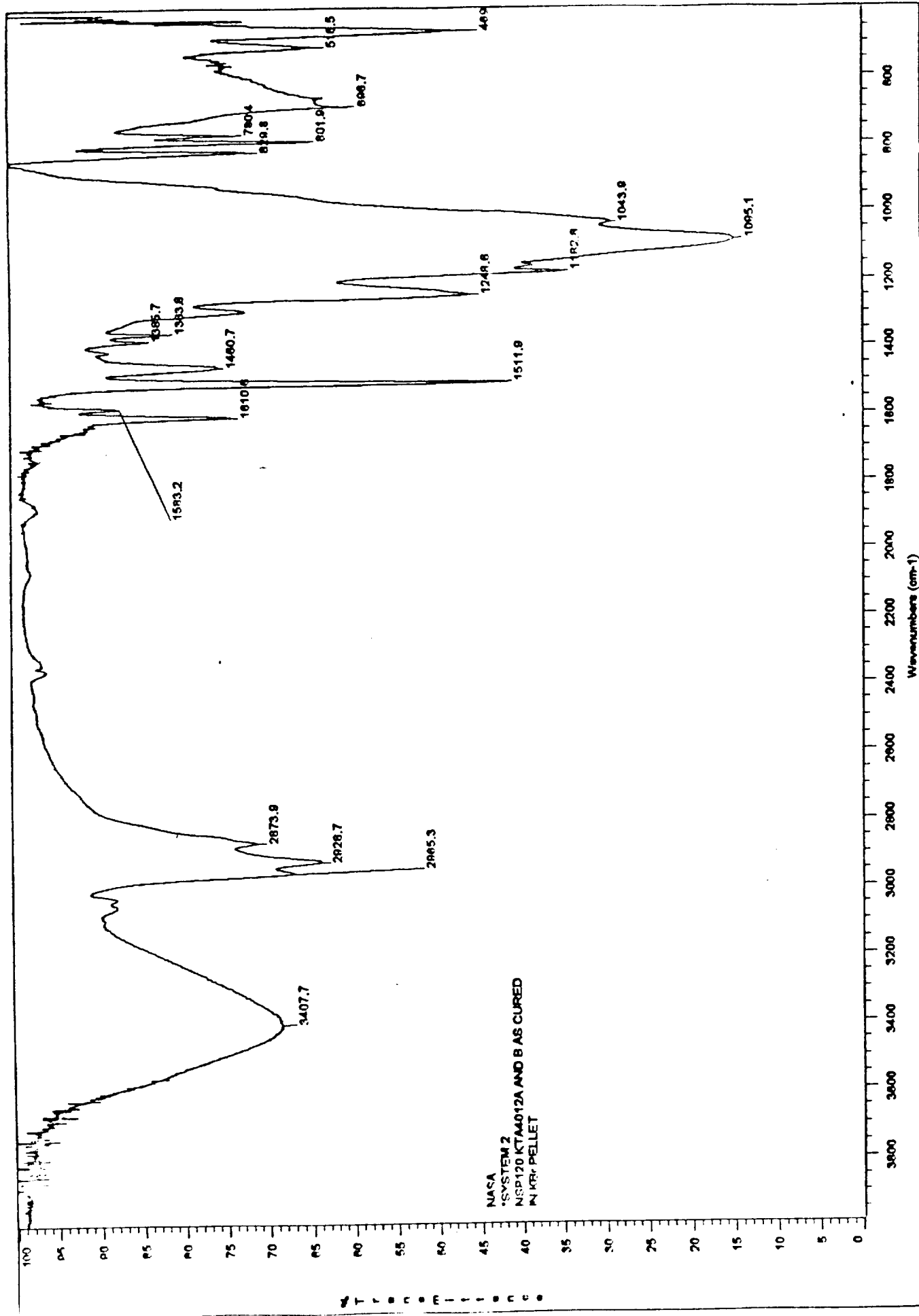
DATA DESCRIPTION

Number of points: 1868
X-axis: Wavenumbers (cm⁻¹)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

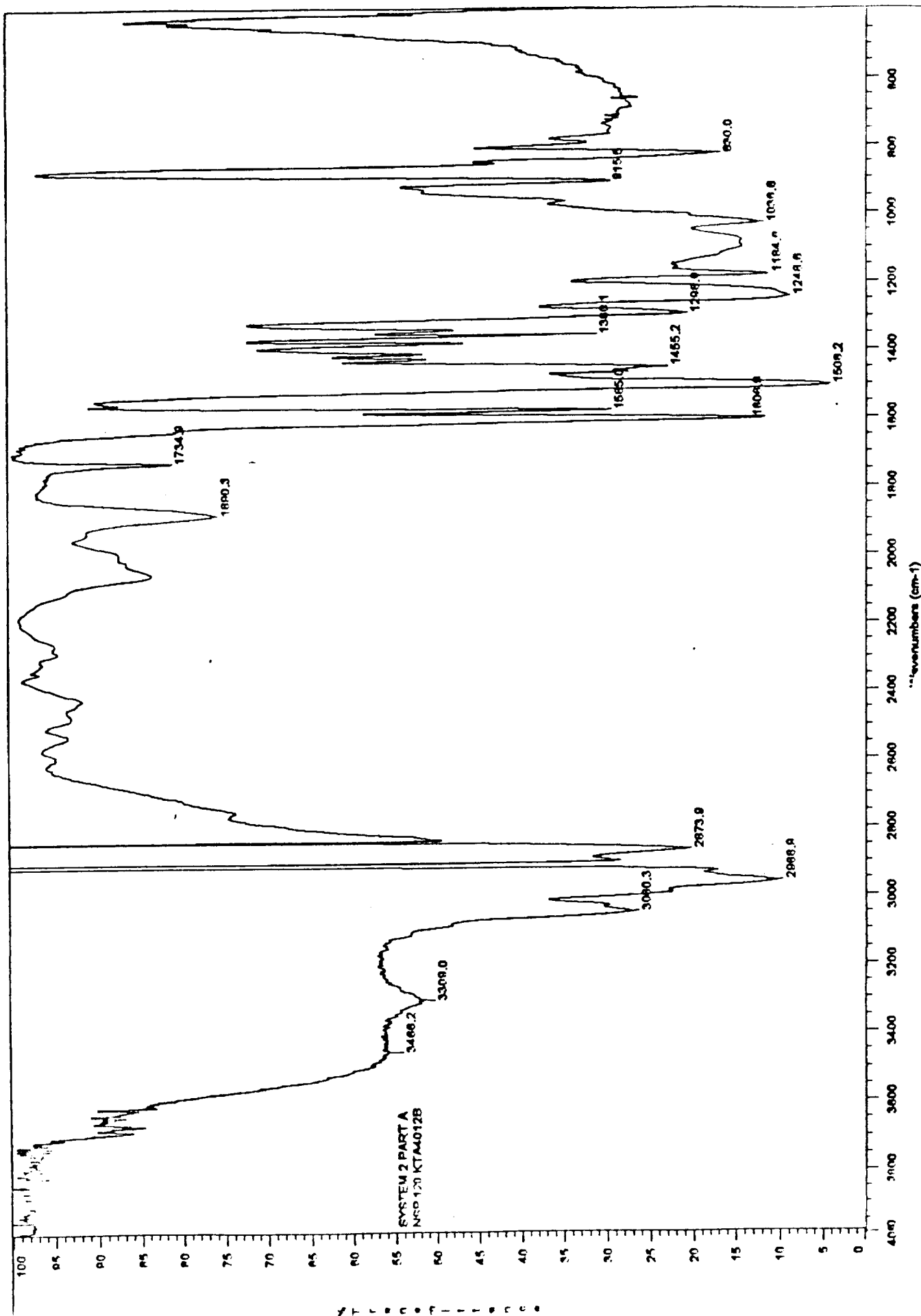
SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTGS KBr
Accessory: 1

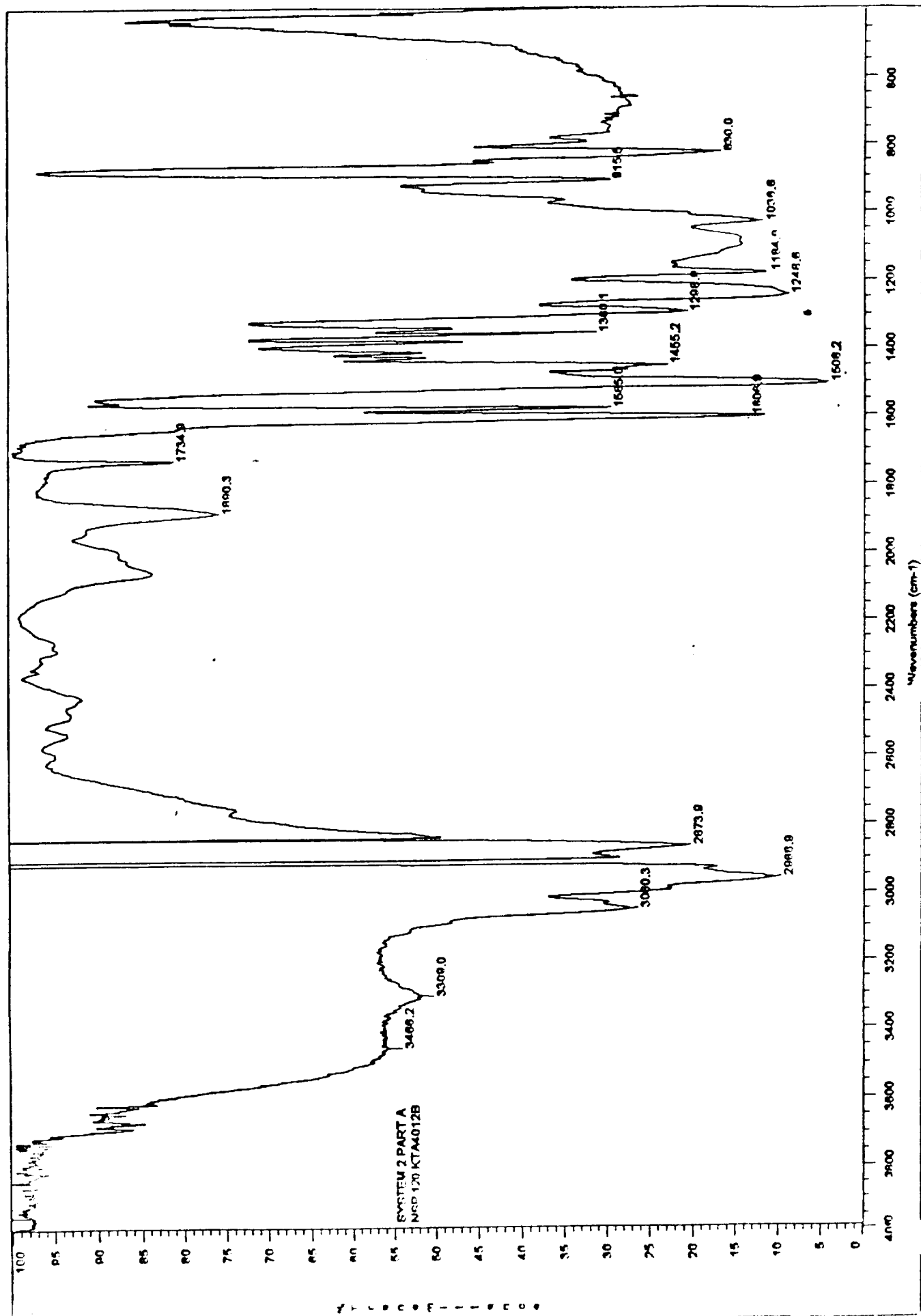
Spectrum 3. System 2. NSP 120 Pa. A and Part B Combined as Cured



Spectrum 4. System 2. NSP 120 Part A



Spectrum 4. System 2. NSP 120 Part A



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COLLECTION AND PROCESSING INFORMATION

Title: system 2 part A
Collected: Thu Apr 07 12:09:35 1994
File name: A:\P300029.SPA
Comments: NRP 101 KTA4012B

DATA COLLECTION INFORMATION

Number of sample scans: 64
Collection length: 45.2 sec
Resolution: 4.000
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Least frequency: 15798.8 cm-1
Interferogram peak position: 1024
Modulation: Ham-Genzel
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
X-axis: Wavenumbers (cm-1)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 400.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 408
Source: IR
Detector: DMS 47C
Accessories: 1
Beam splitter: FMC
Sample spacing: 2.0000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 32.0
High pass filter: 200.0900
Low pass filter: 90000.8000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Thu Apr 07 12:01:15 1994
Final format: Absorbance
Resolution: 4.000 from 399.2414 to 400.1284

Baseline Correct on Mon Sep 26 17:44:53 1994

Data Format: Absorbance

Correction points: 15

1.0248 at 399.2414
1.3261 at 420.3887
1.1566 at 477.6528
1.0813 at 508.3654
0.6683 at 806.3828
0.8765 at 1270.8604
0.5729 at 1597.5054
0.4509 at 1852.9657
0.4411 at 2180.4160
0.4411 at 2480.8978
0.5560 at 2687.2949
0.7088 at 2852.6870
0.8495 at 3457.1545
1.0248 at 4000.1284
1.0248 at 4000.1284

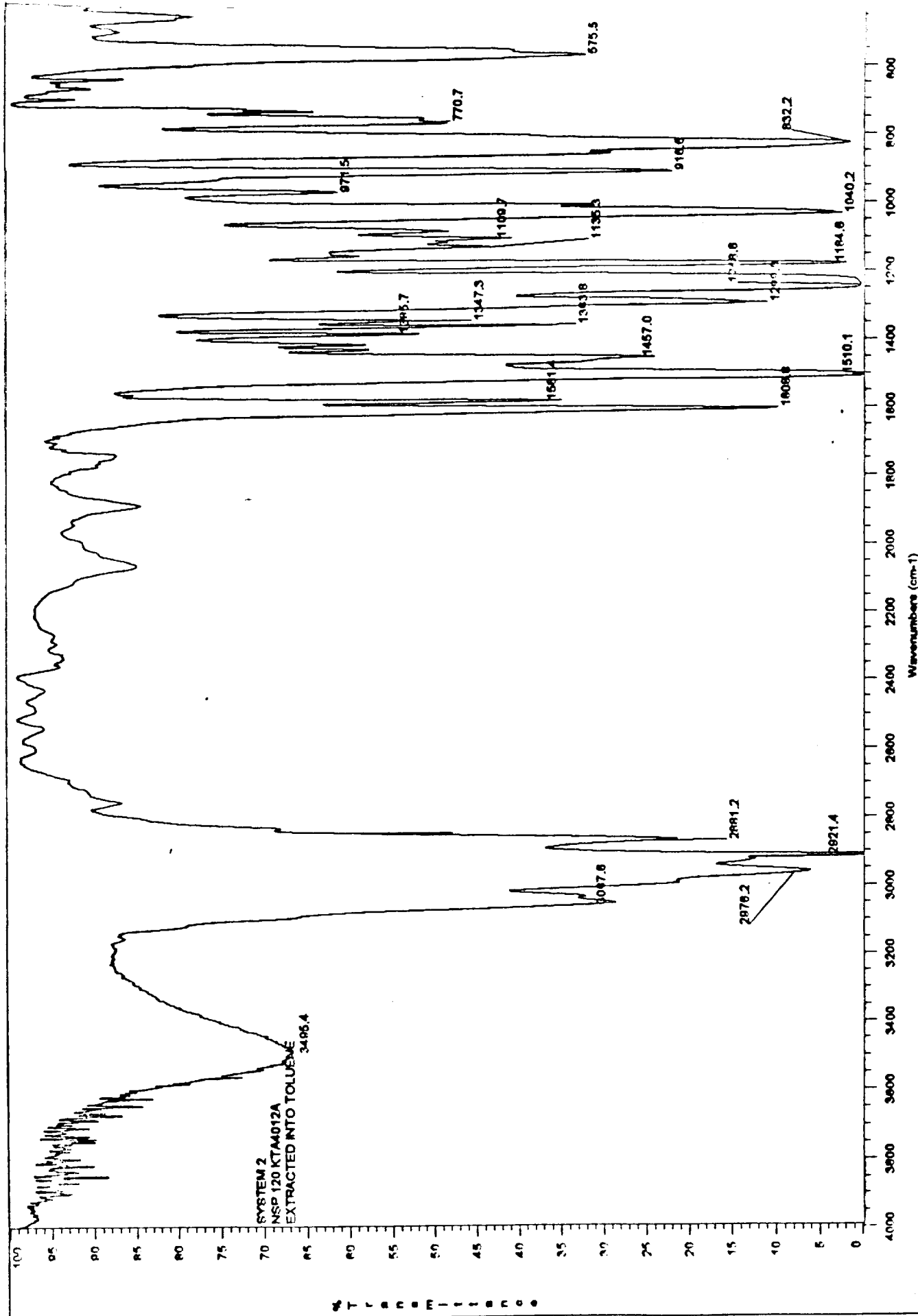
Baseline Correct on Mon Sep 26 17:46:20 1994

Data Format: Absorbance

Correction points: 12

0.09 at 399.2414
0.11 at 411.3047
0.01 at 550.0325
0.0507 at 801.7725
0.0377 at 1001.6072

Spectrum 5. System 2. NSP 120 Part A Extracted into Toluene



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 2
Collected: THU APR 07 13:47:18 1994
File name: A:\K00036.3PA
Comments: MSP 120 KTA4012A
UNPACKED INTO NO.1000

DATA COLLECTION INFORMATION
Number of sample scans: 64
Collection length: 45.2 sec
Resolution: 4.000
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 CM-1
Interferogram peak position: 1024
Amplification: 400.0000
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION
Number of points: 1668
X-axis: Wavenumbers (CM-1)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 400.1284
Data spacing: 1.928702

INSTRUMENT DESCRIPTION
Spectrometer: J-DECT 400
Source: IR
Detector: JNCS-1A
Accessories: 1
Beam splitter: KTC
Sample spacing: 2.0000
Digitizer bits: 14
Motor velocity: 0.6329
Aperture: 1.00
Sample gain: 0.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY
Collect Sample
Background collected on THU APR 07 12:01:15 1994
Final format: Absorbance
Resolution: 4.000 from 399.2414 to 400.1284

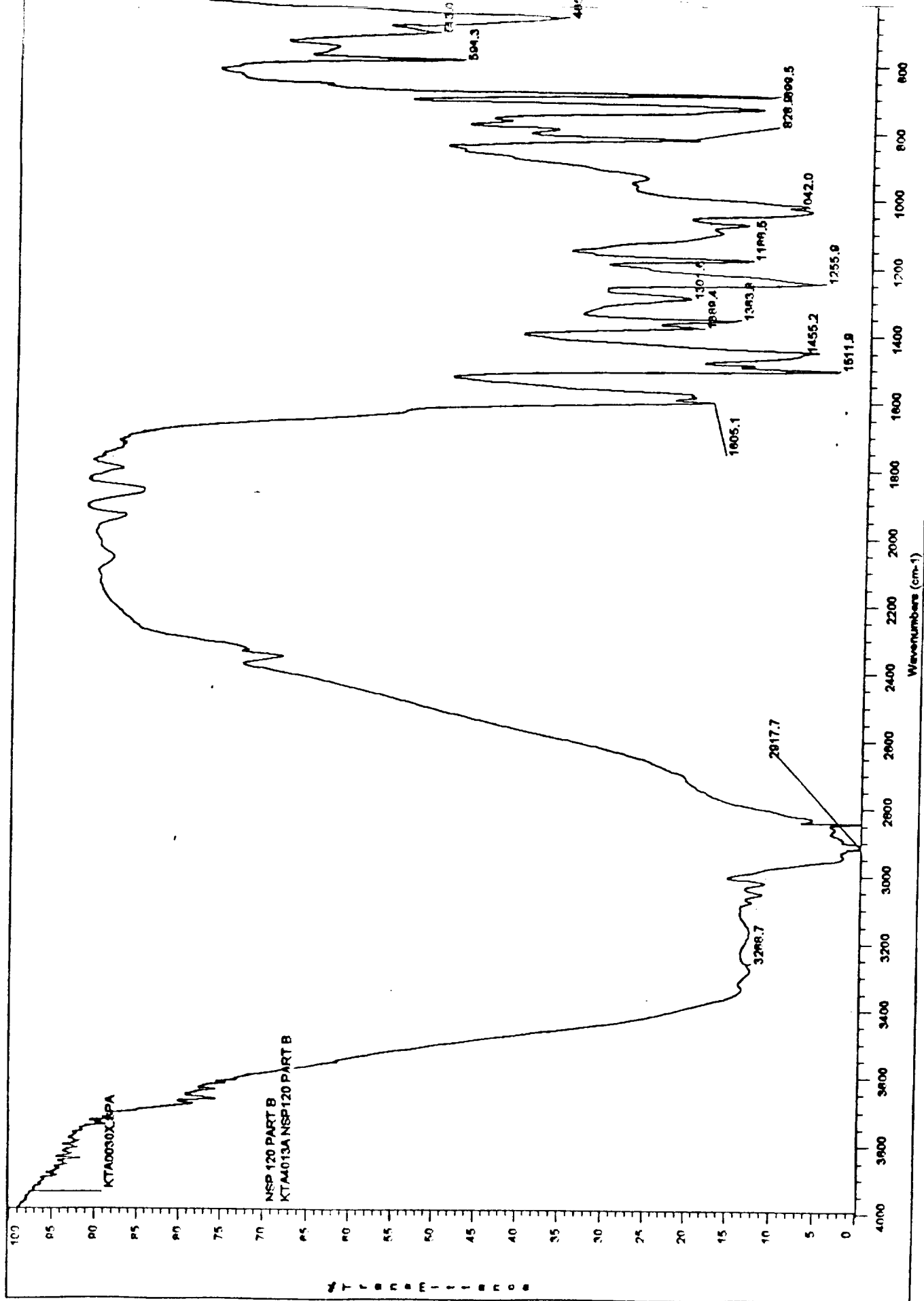
Baseline Correct on Mon Sep 26 18:13:22 1994

Data format: Absorbance

Correction points: 35

0.2320 at 399.2414
0.1245 at 423.6679
0.1364 at 471.7211
0.1404 at 574.1599
0.1325 at 688.7600
0.1563 at 755.1079
0.1922 at 851.6143
0.2081 at 948.7204
0.2320 at 1052.7214
0.2360 at 1177.3225
0.2121 at 1303.9688
0.1982 at 1400.4032
0.1563 at 1486.1993
0.1364 at 1551.2839
0.1006 at 1627.6636
0.0608 at 1780.4861
0.0366 at 1937.3088
-0.0029 at 2100.6375
-0.0388 at 2480.9378
-0.0427 at 2612.8521
-0.0268 at 2601.2632
0.0130 at 2720.4840
0.0000 at 2700.1605

Spectrum 6. System 2. NSP 120 Part B



COLLECTION AND PROCESSING INFORMATION

Title: WEP 120 PART B
 Collected: Thu Apr 07 12:22:08 1994
 File name: A:\WEP00030.SPA
 Comments: WJL00030 N9P120 PART B

DATA COLLECTION INFORMATION

Number of sample scans: 64
 Collection length: 45.2 sec
 Resolution: 4.000
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15799.8 CM-1
 Interferogram peak position: 1024
 Modulation: Happ-Genzel
 Number of background scans: 64
 Background gain: 4.0

DATA DESCRIPTION

Number of points: 1688
 Y-axis: Wavenumbers (CM-1)
 X-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

ANALYZER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS MTE
 Accessory: 1
 Amplifier: WAC
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 16.0
 High pass filter: 200.0800
 Low pass filter: 9000.0000

DATA PROCESSING HISTORY

Collect Sample
 Background collected on Thu Apr 07 12:01:15 1994
 Final format: Absorbance
 Resolution: 4.000 from 399.2414 to 4000.1284

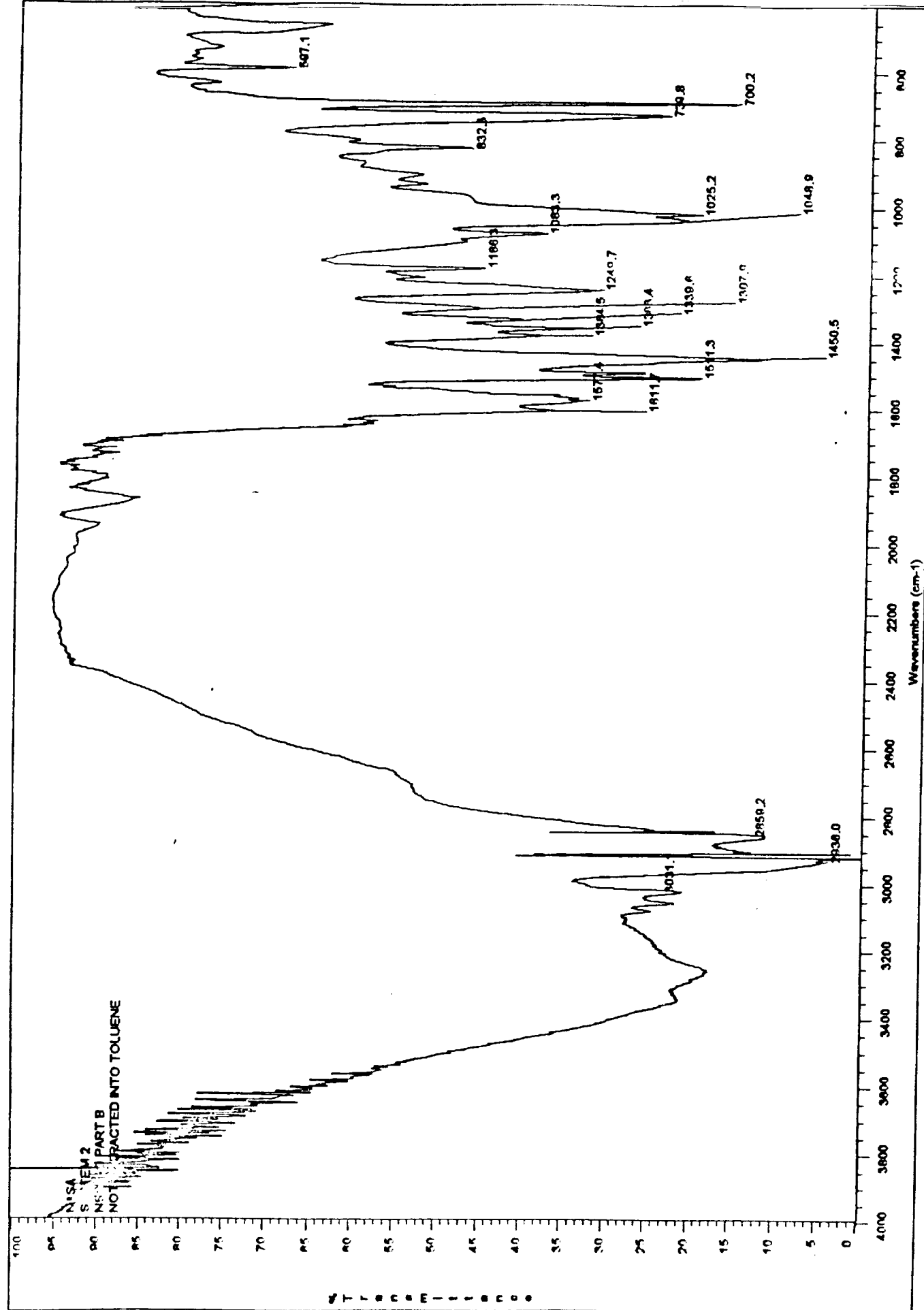
Baseline Correct on Mon Sep 26 18:01:01 1994

Data format: Absorbance

Correction points: 16

0.0370 at 399.2414
 0.3036 at 411.3047
 0.3713 at 457.5261
 0.3490 at 501.7793
 0.3357 at 556.0640
 0.3178 at 646.5396
 0.3134 at 773.2029
 0.2866 at 936.0571
 0.2287 at 1249.7021
 0.1767 at 1676.9924
 0.1529 at 2220.7957
 0.1217 at 2624.9153
 0.0661 at 3065.2240
 0.0549 at 3659.8188
 0.0370 at 3994.0967
 0.0370 at 4000.1284

Spectrum 7. System 2. NSP 120 Part B Extracted into Toluene



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COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 2
Collected: Wed Mar 23 14:14:00 1994
File name: X:\VIA00009.SPA
Comments: MAR 120 PART B
NOT EXTRACTED INTO TOLUENE

DATA COLLECTION INFORMATION

Number of sample scans: 64
Collection length: 45.2 sec
Resolution: 4.000
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Inter-frequency: 15798.9 CM-1
Inter-frequency peak position: 1024
Amplification: Nonp-Ganzel
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION

Number of points: 1069
X-axis: Wavenumbers (CM-1)
Y-axis: Transmittance
First X value: 309.2414
Last X value: 4000.1294
Data spacing: 1.928702

SCANNING INFORMATION

Source: IR
Detector: DMSR KRX
Polarizer: 1
Sample spacing: 2.0000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 16.0
High pass filter: 200.0000
Low pass filter: 9000.0000

DATA PROCESSING HISTORY

Collect sample
Background collected on Wed Mar 23 14:05:21 1994
Final format: Transmittance
Resolution: 4.000 from 309.2414 to 4000.1294

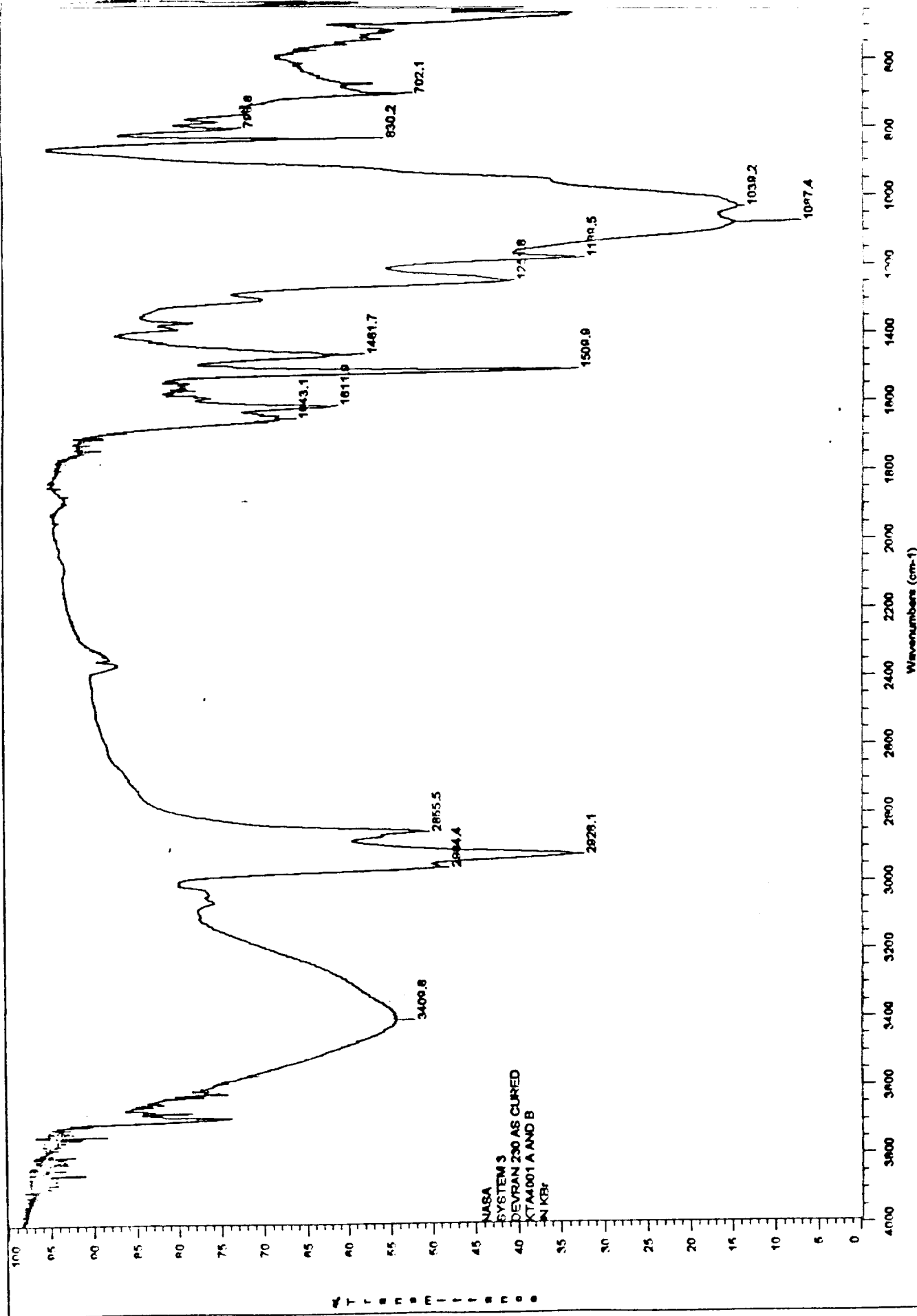
Baseline Correct on Mon Sep 26 18:50:05 1994

Data format: Absorbance

Correction points: 9

0.4257 at 309.2414
0.5446 at 417.3764
0.5371 at 471.6211
0.5520 at 646.5386
0.5148 at 841.7725
0.4406 at 1738.2646
0.4183 at 2214.7642
0.4257 at 3094.0067
0.4257 at 4000.1294

Spectrum 8. System 3. Devran 230 Part A and Part B Combined as Cured



COLLECTION AND PROCESSING INFORMATION

File: system 3
 Collected: Wed May 25 12:03:44 1994
 File name: A:\WTA00047.SPA
 Comments: primary 210 AS CURED
 WTA0001 A and B
 IN WTC

DATA COLLECTION INFORMATION

Number of sample scans: 32
 Collection length: 70.7 sec
 Resolution: 2.000
 Levels of zero filling: 0
 Number of scan points: 9504
 Number of FFT points: 18384
 Laser frequency: 15799.8 CM-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 32
 Background gain: 1.0

DATA DESCRIPTION

Number of points: 3734
 Y-axis: Wavenumbers (CM-1)
 Y-axis: Transmittance
 First X value: 400.1813
 Last X value: 399.8843
 Data spacing: 0.964292

ANALYTICAL DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS KBr
 Interferometer: 1
 Sample path: Unknown
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.4178
 Aperture: 34.08
 Sample gain: 1.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

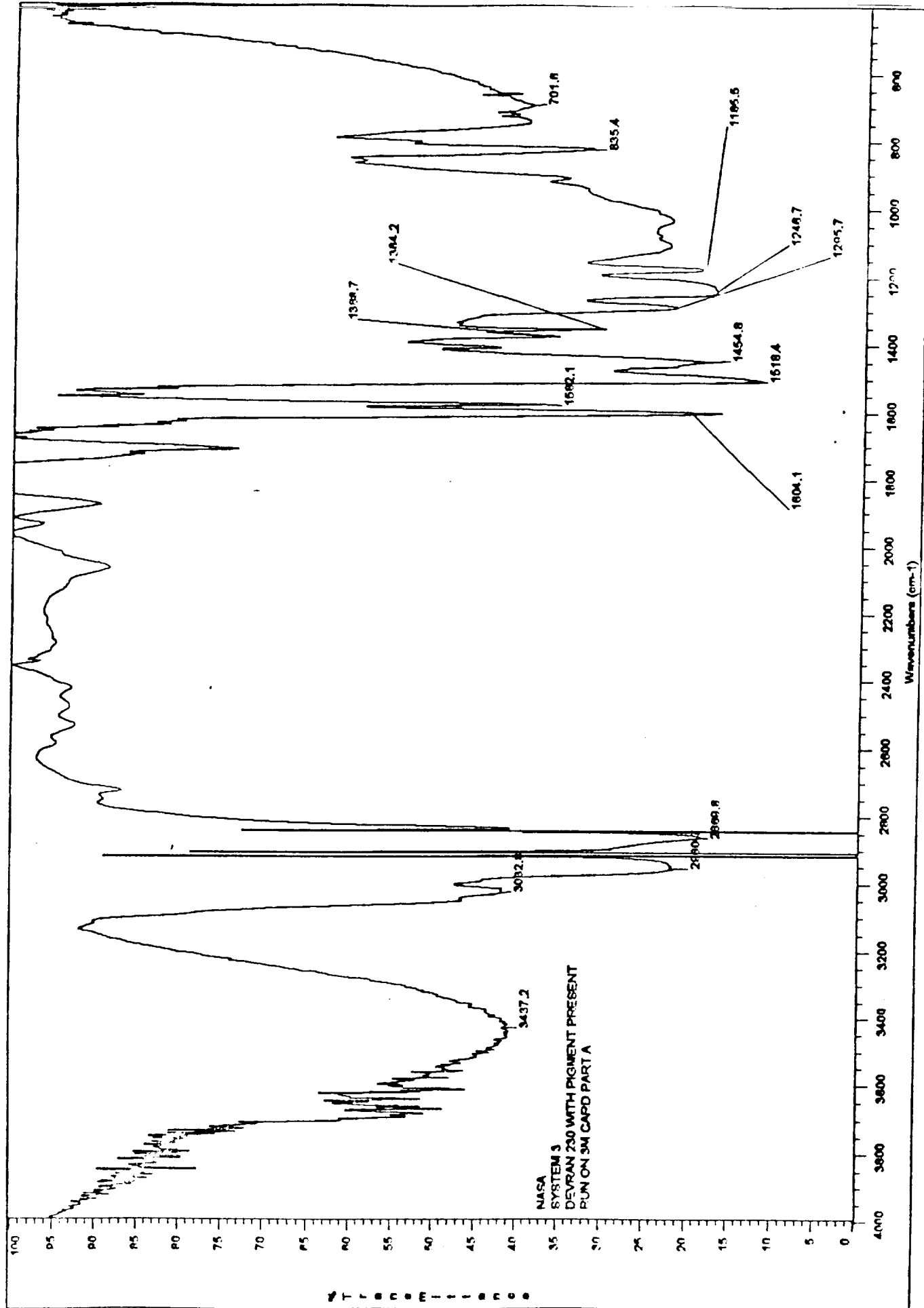
DATA PROCESSING HISTORY

Collect sample
 Background collected on Wed May 25 11:56:33 1994
 Final format: Transmittance
 Resolution: 2.000 from 400.1813 to 399.8843

Baseline Correct on Mon Sep 26 19:09:37 1994

Data format: Absorbance
 Correction points: 9
 0.5486 at 400.1813
 0.4297 at 397.1304
 0.3746 at 399.4351
 0.2920 at 1726.7051
 0.3406 at 2371.8779
 0.4475 at 3029.1101
 0.4951 at 3746.6389
 0.5486 at 3999.8843
 0.5486 at 3999.8843

Spectrum 9. System 3. Devran 230 Part A



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COLLECTION AND PROCESSING INFORMATION

Title: system 3
Collected: Wed Mar 23 11:48:56 1994
File name: A:\FRA00004.SPA
Comments: DRYAN 230 WITH PIGMENT PRESENT
ON IN CARD PLOT A

DATA COLLECTION INFORMATION

Number of sample scans: 64
Collection length: 45.3 sec
Resolution: 4.000
Level of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 CM-1
Interferometer peak position: 1074
Modulation: Happ-Gansel
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
Y-axis: Wavenumbers (CM-1)
X-axis: Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.924702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTGS MTE
Accessories: 1
Sample holder: KBr
Sample spacing: 2.0000
Polarizer bits: 15
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 16.0
High pass filter: 200.0000
Low pass filter: 9000.0000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Wed Mar 23 11:47:24 1994
Final format: Transmittance
Resolution: 4.000 from 399.2414 to 4000.1284

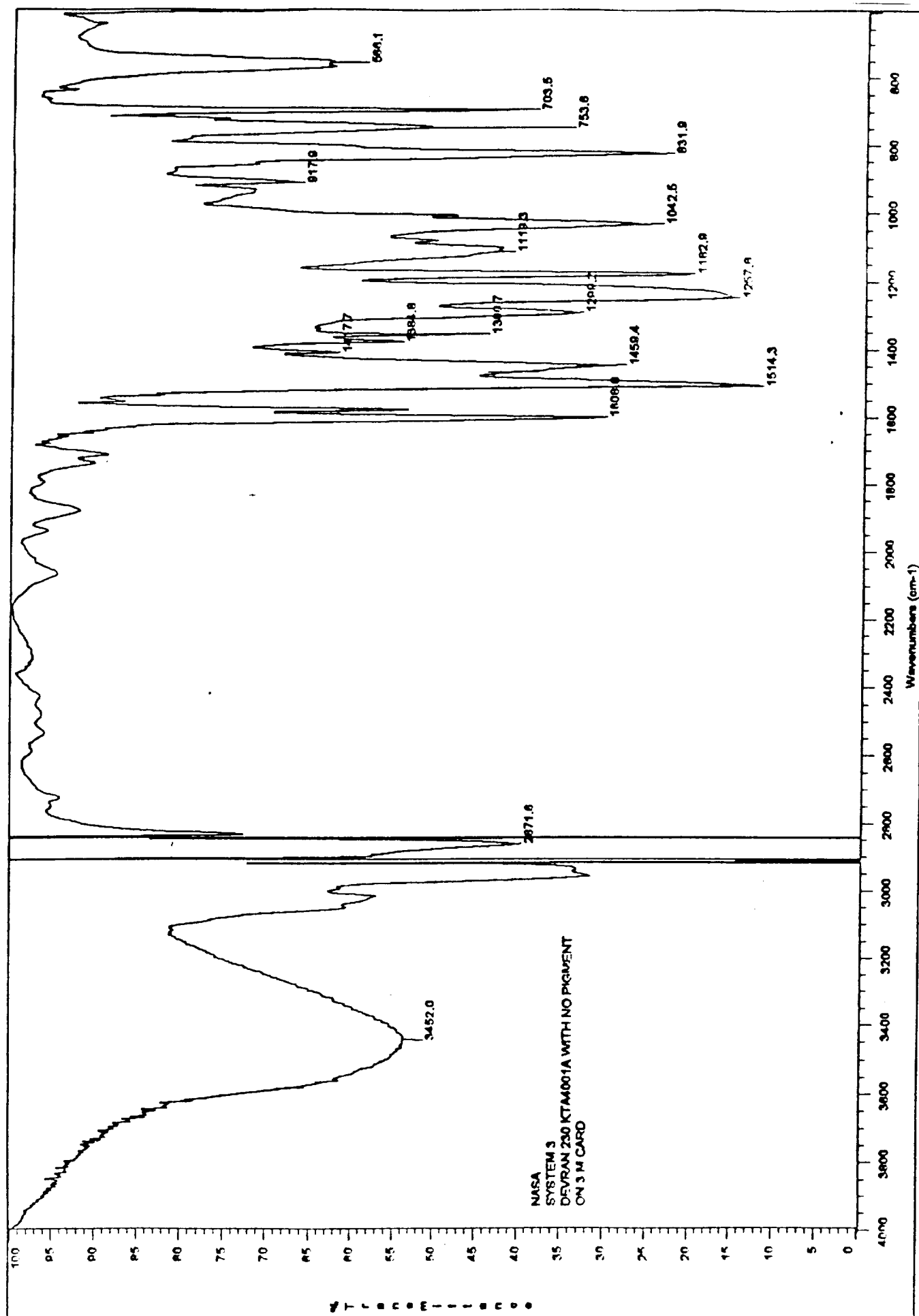
Baseline Correct on Mon Sep 26 19:30:35 1994

Data format: Absorbance

Correction points: 11

0.8069 at 399.2414
1.1189 at 405.2732
0.8486 at 502.2539
0.8514 at 821.4561
0.7726 at 1068.7532
0.5691 at 1448.7461
0.3164 at 2136.3529
0.2969 at 2703.3267
0.3714 at 3131.5728
0.8069 at 4000.1284
0.8069 at 4000.1284

Spectrum 10. System 3. Devran 230 Part A Extracted into Toluene



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COLLECTION AND PROCESSING INFORMATION

File: system 3
Collected: Wed Mar 23 11:08:09 1994
File name: A:\PWA00001.SPA
Sample: PERMAN 230 KTA4001A WITH NO PIGMENT
IN A M CARD

DATA COLLECTION INFORMATION
Number of sample scans: 64
Collection length: 45.3 sec
Resolution: 4.000
Level of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm-1
Interferogram peak position: 1024
A/D conversion: Ramp-General
Number of background scans: 64
Background gain: 4.0

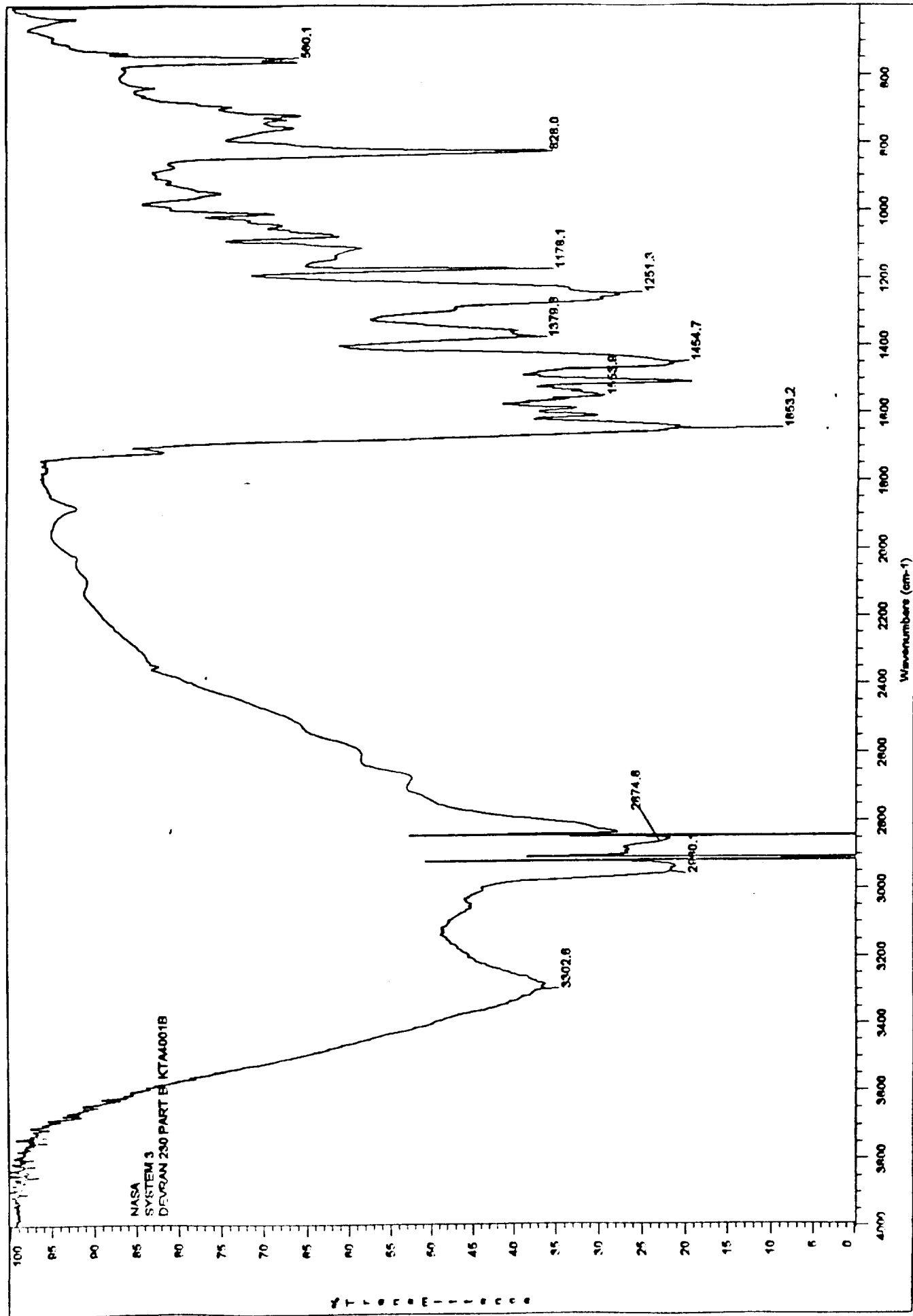
DATA DESCRIPTION
Number of points: 1868
X-axis: Wavenumbers (cm-1)
Y-axis: %Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION
Spectrometer: Impact 400
Source: IR
Detector: PMOS KRE
Accessory: 1
Sample holder: PIR
Sample spacing: 2.0000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 4.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY
Collect Sample
Background collected on Wed Mar 23 11:07:03 1994
Final format: %Transmittance
Resolution: 4.000 from 399.2414 to 4000.1284

Smoothing Correct on Mon Sep 26 19:19:23 1994
Data format: Absorbance
Correction points: 7
-0.0002 at 399.2414
0.1129 at 411.3047
0.1248 at 664.6335
0.0524 at 1641.7585
-0.0089 at 2540.0420
-0.0002 at 4000.1284
-0.0002 at 4000.1284

Spectrum 11. System 3. Devran 230 Part B



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 3
 Collected: Wed Mar 23 12:05:40 1994
 File name: A:\PM00005.SPA
 Comments: PWDAN 230 PART B RTA40018

DATA COLLECTION INFORMATION

Number of sample scans: 64
 Collection length: 45.3 sec
 Resolution: 4.000
 Levels of zero fillings: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 CM-1
 Interferometer peak position: 1024
 Amplification: Hart-Genzel
 Number of background scans: 64
 Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
 Y-axis: Wavenumbers (CM-1)
 X-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

INTERFEROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: J2
 Detector: DTGS KBr
 Accessory: 1
 Beam splitter: KBr
 Sample spacing: 2.0000
 Digitizer bits: 16
 Microt velocity: 0.6329
 Aperture: 1.00
 Sample Gain: 4.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
 Background collected on Wed Mar 23 12:04:21 1994
 Final format: Transmittance
 Resolution: 4.000 from 399.2414 to 4000.1284

Baseline Correct on Mon Sep 26 20:24:09 1994

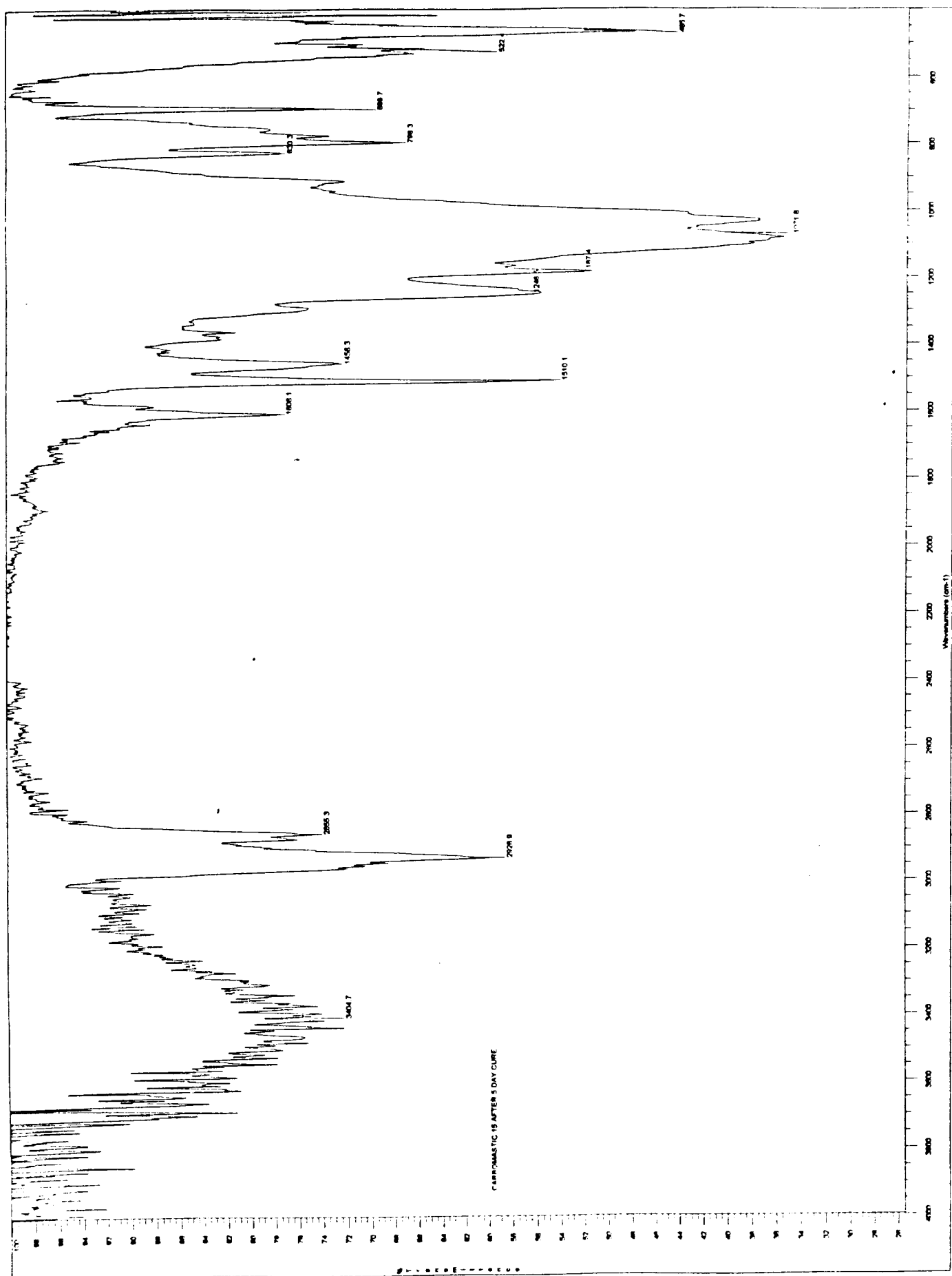
Data format: Absorbance
 Correction points: 16
 -0.1357 at 399.2414
 0.1131 at 405.2732
 0.1317 at 409.7161
 0.1354 at 404.3171
 0.1284 at 407.3411
 0.1064 at 1026.5317
 0.0686 at 1285.9921
 0.0500 at 1551.2939
 0.0277 at 1702.5486
 0.0081 at 1931.2771
 -0.0057 at 2106.1846
 -0.0243 at 2413.8081
 -0.0699 at 2732.4849
 -0.1060 at 3270.3003
 -0.1469 at 4000.1284
 -0.1469 at 4000.1284

Baseline Correct on Mon Sep 26 20:24:57 1994

Data format: Absorbance
 Correction points: 12
 0.0203 at 399.2414
 0.0574 at 701.2979
 0.0797 at 1141.1328
 0.0024 at 1279.6728

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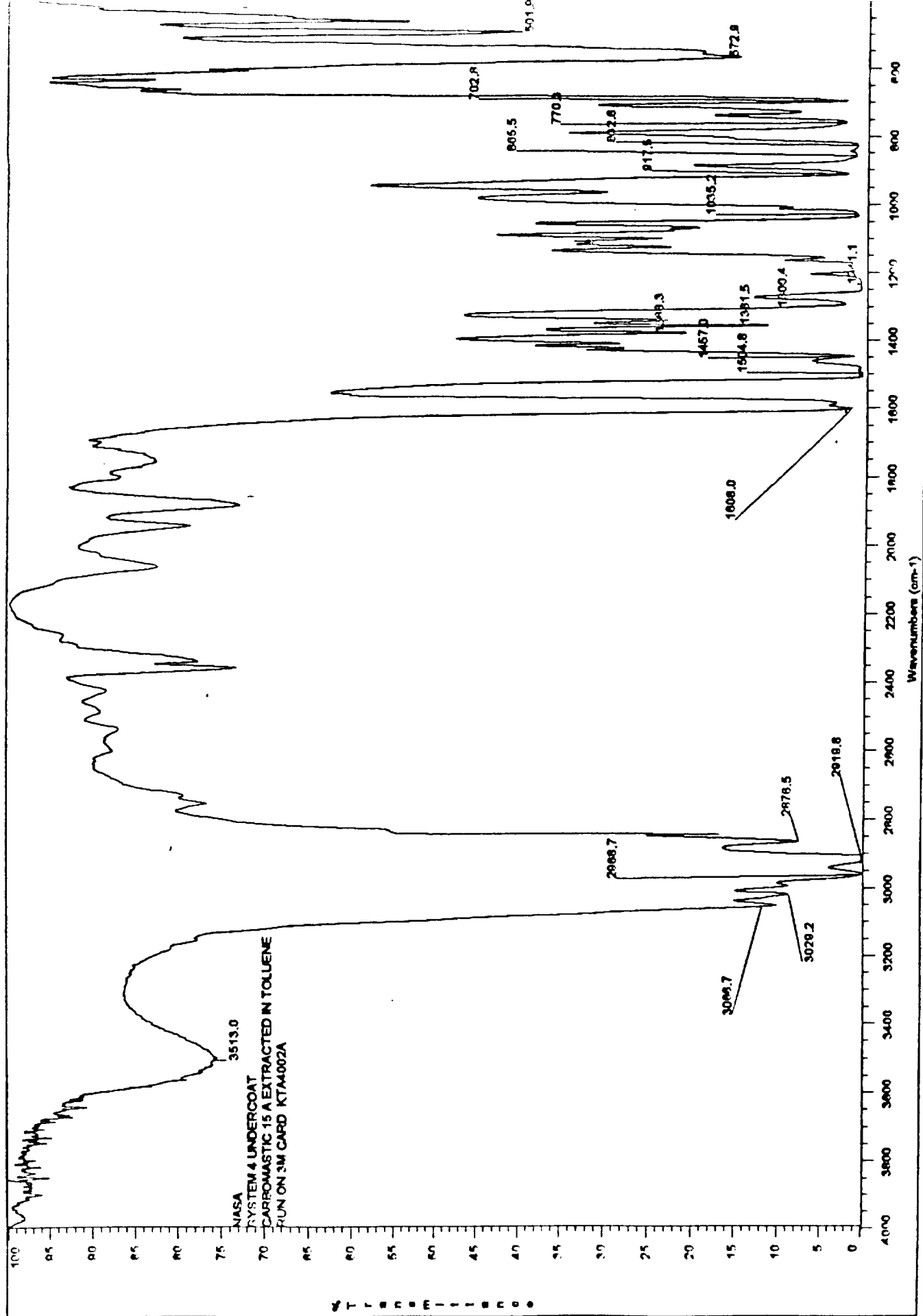
Spectrum 12. System 4. U Carbcoat Carbomastic 15 Part A and Part B Combined, Cured



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Spectrum 13. System 4. Undercoat. Carbomastic 15 Part A
Extracted into Toluene



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COLLECTION AND PROCESSING INFORMATION

File: SYSTEM 4 UNDERCOAT
Collected: Thu Apr 07 12:48:03 1994
File name: A:\DATA0031.SPA
Comment: CHROMATIC 15 A EXTRACTED IN TOLUENE
RUN ON JM CARI 77A002A

DATA COLLECTION INFORMATION

Number of sample scans: 64
Collection length: 45.2 sec
Resolution: 4.000
Levels of zero filling: 0
Number of scan points: 5408
Number of FT points: 8192
Laser frequency: 15798.0 CM-1
Interferogram peak position: 1024
Apodization: Happ-Genzel
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
X-axis: Wavenumbers (CM-1)
Y-axis: Transmittance
First X value: 300.2414
Last X value: 4000.1294
Data spacing: 1.028702

INSTRUMENT DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTS K4t
Accessories: 1
Beam splitter: PAR
Sample spacing: 2.8000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 15.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Thu Apr 07 12:01:15 1994
Final format: Absorbance
Resolution: 4.000 from 399.2414 to 4000.1294

Baseline Correct on Mon Sep 26 20:42:41 1994

Data format: Absorbance

Correction points: 10

0.2458 at 399.2414

0.2414 at 562.0057

0.2235 at 972.2468

0.1857 at 1527.1575

0.1567 at 1901.1189

0.1233 at 2474.1245

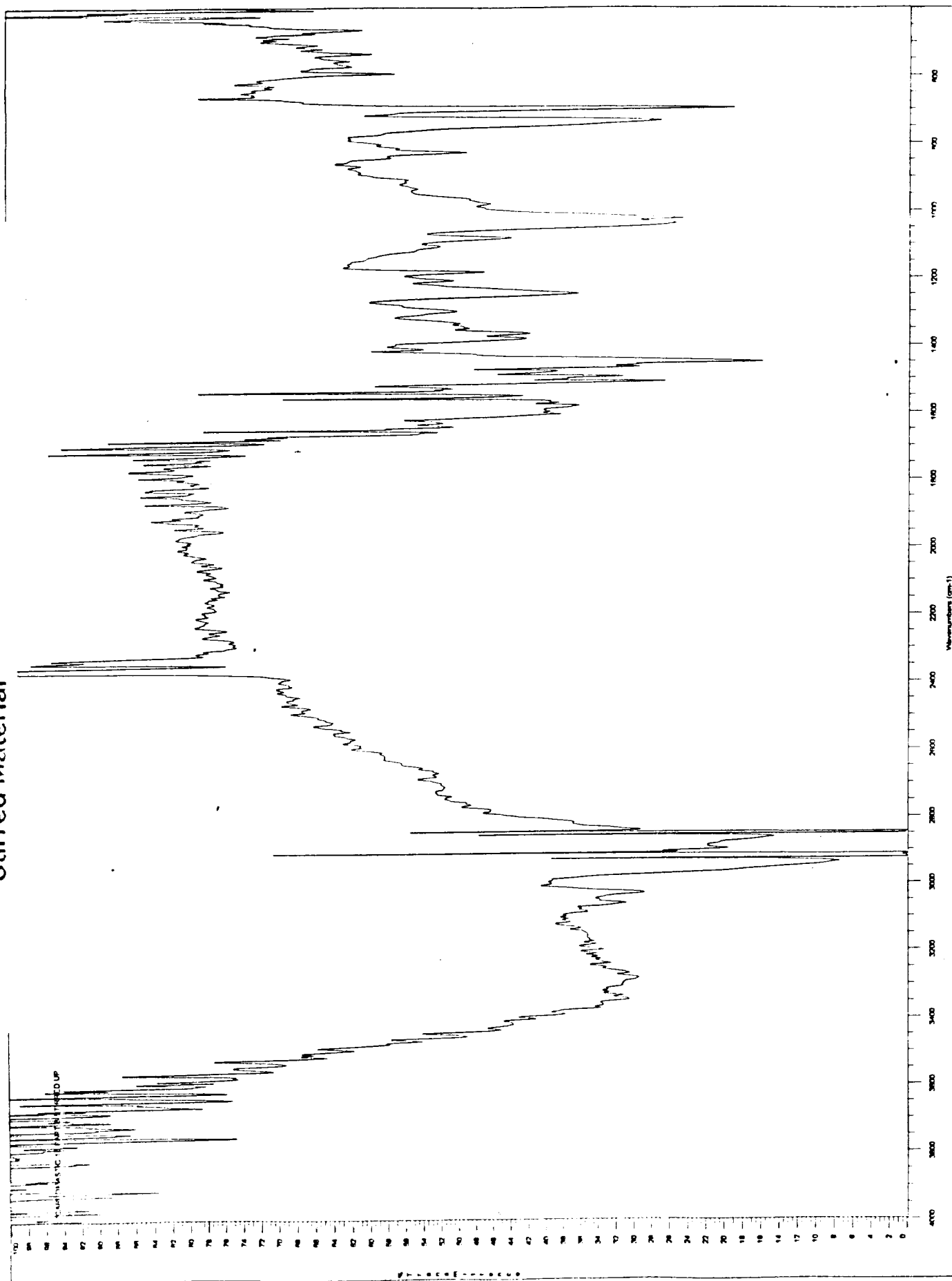
0.0797 at 3107.4463

0.0297 at 3801.0845

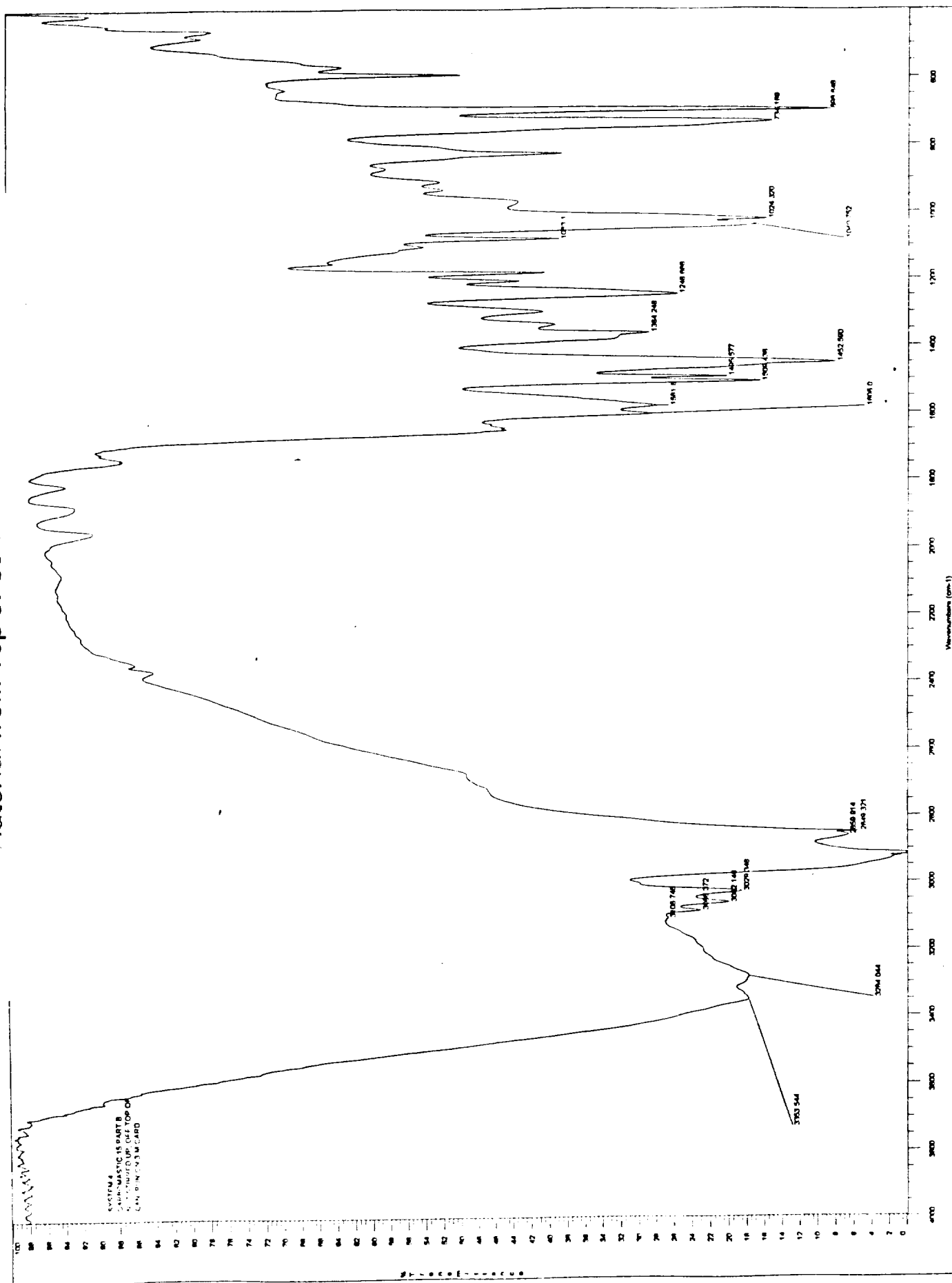
0.0118 at 3999.0652

0.0118 at 4000.1294

Spectrum 14. System 4. (Carcoat. Carbomastic 15 Part B
Stirred Material



Spectrum 15. System (ndercoat. Carbomastic 15 Part B
Material from Top of Can

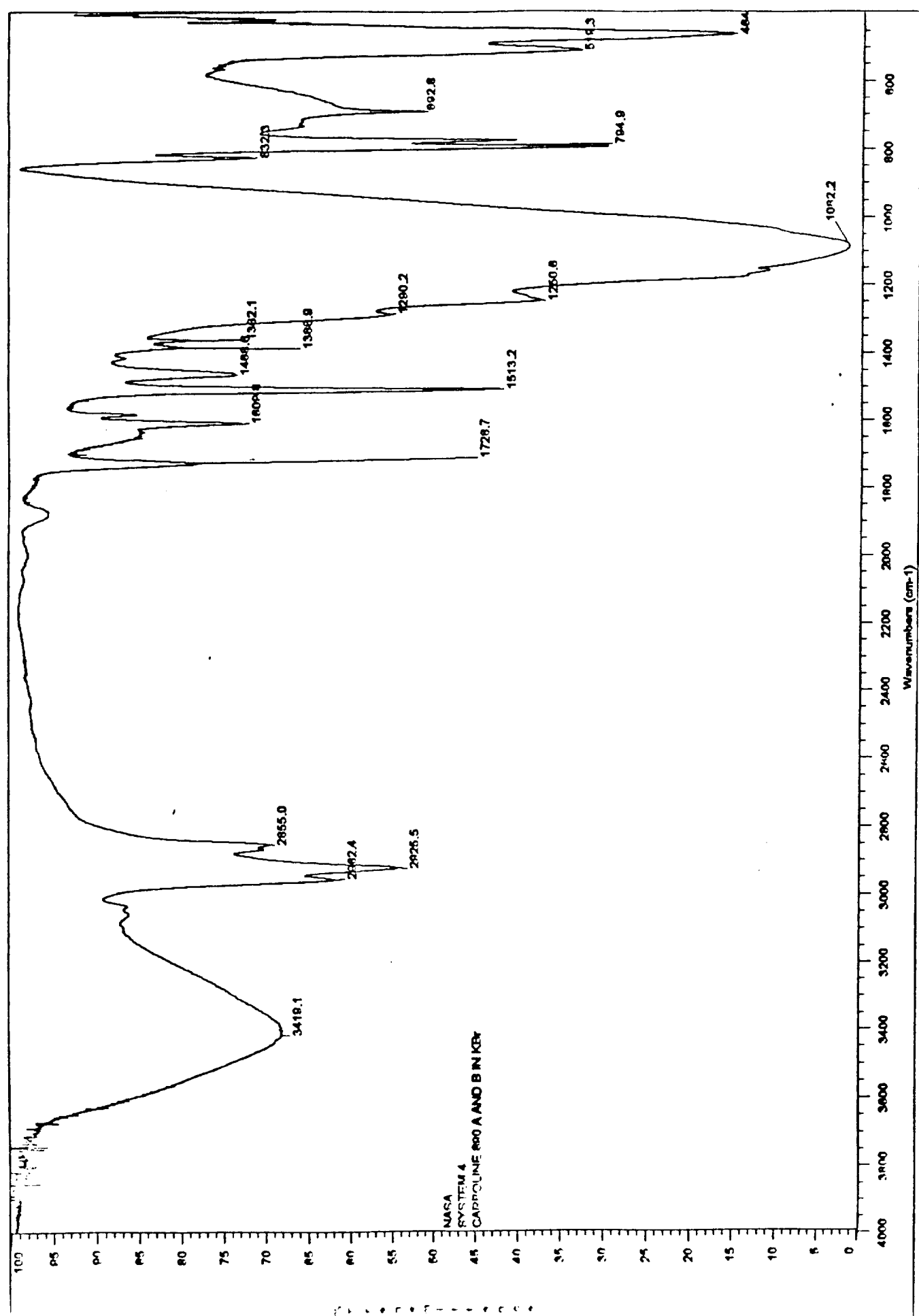


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 BY: [illegible]
 TITLE: [illegible]
 PROJECT: [illegible]
 PAGE: 1

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Spectrum 16. System 4. Topcoat. ()
as Cured.



COLLECTION AND PROCESSING INFORMATION

title: system 4
 collected: Sat May 25 13:42:53 1994
 file name: A:\PTA00048.SPA
 comments: CHANNELS 800 A AND B IN KHz

DATA COLLECTION INFORMATION

Number of sample scans: 32
 Collection length: 70.7 sec
 Resolution: 2.000
 Levels of zero filling: 0
 Number of scan points: 9504
 Number of FFT points: 16384
 Laser frequency: 15799.8 CM-1
 Interferogram peak position: 1024
 Analogization: Happ-Genzel
 Number of background scans: 32
 Background gain: 1.0

DATA DESCRIPTION

Number of points: 3734
 Y-axis: Wavenumbers (CM-1)
 X-axis: Transmittance
 Fitted X value: 400.1813
 Fitted Y value: 3099.8843
 Data spacing: 0.064292

ANALYZER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: Pyrex KBr
 Accessory: 1
 Sample filter: Unknown
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.4178
 Aperture: 34.09
 Sample gain: 1.0
 High pass filter: 200.0000
 Low pass filter: 9000.0000

DATA PROCESSING HISTORY

Collect sample
 Background collected on Sat May 25 13:15:06 1994
 Final format: Transmittance
 Resolution: 2.000 from 400.1813 to 3099.8843

Baseline Correct on Mon Sep 26 20:35:09 1994

Data format: Absorbance

Correction points: 14

0.3577 at 400.1813

0.2993 at 804.5964

0.2240 at 623.2786

0.1497 at 709.1384

0.1163 at 1063.4431

0.0903 at 1300.0444

0.0643 at 1709.9719

0.0643 at 2004.5139

0.0754 at 2438.2041

0.0977 at 2787.9239

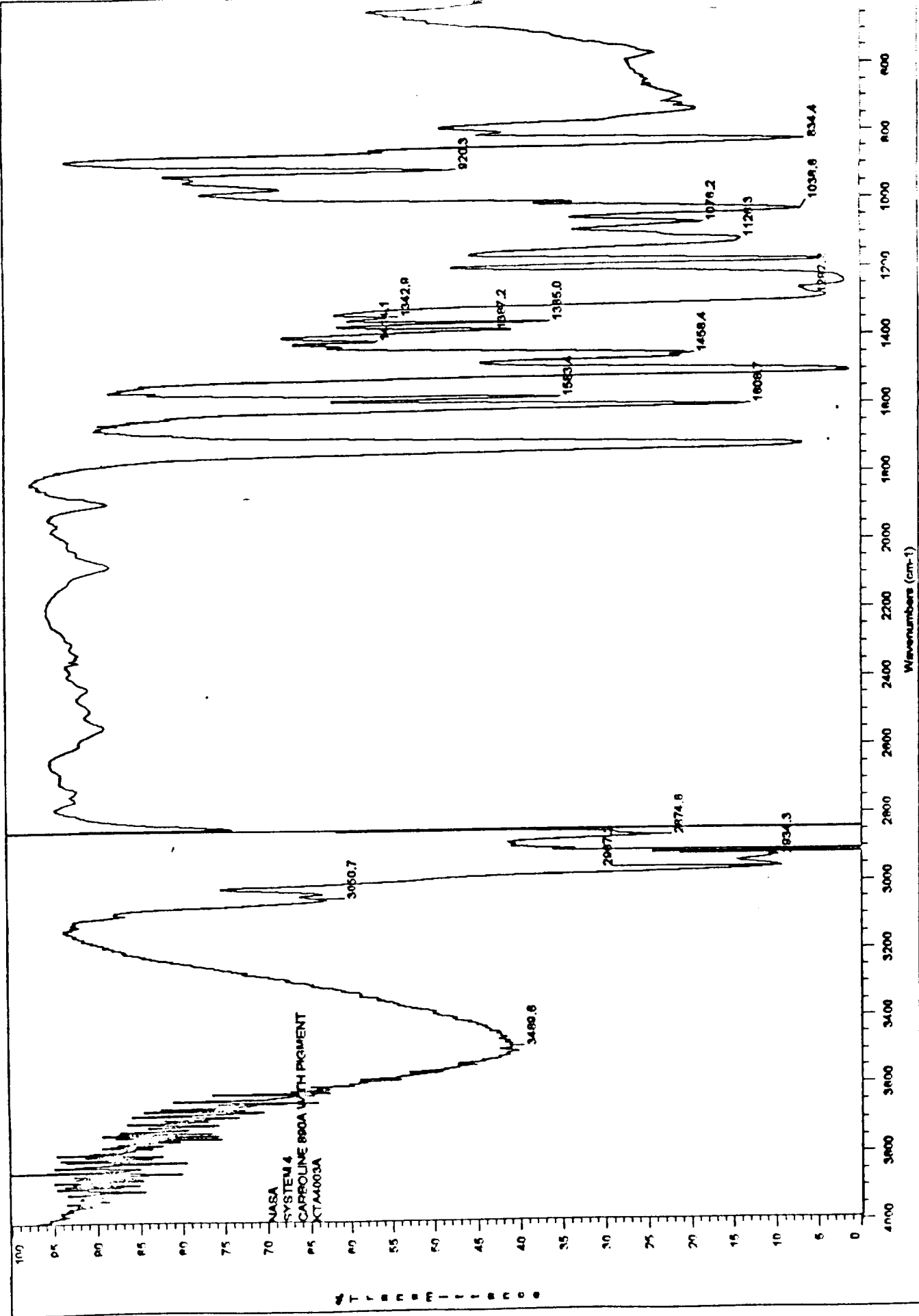
0.1126 at 3197.9404

0.1274 at 3716.4905

0.1571 at 3099.8843

0.1571 at 3099.8843

Spectrum 17. System 4. Topcoat. Carboline 890 Part A



Fuller & Hatcher

collected: wed Mar 23 14:24:36 1994
file name: A:\WWW0011.SPA
comments: CARBOLITE 890A WITH PIGMENT
WWW002A

COLLECTOR INFORMATION

number of sample scans: 64
 collection length: 45.2 sec
 resolution: 4,000
 levels of zero filling: 0
 number of mean points: 5408
 number of ppt points: 8192
 laser frequency: 13799.8 cm⁻¹
 interferogram peak position: 1024
 apodization: Happ-Ganzel
 number of background scans: 64
 background gain: 4.0

DISCRIMINATION

number of points: 1968
X-axis: sevenubers (CE-1)
Y-axis: attendance
first X value: 399.2414
last X value: 4000.1284
beta spacing: 1.028702

NOTICE OF PUBLIC HEARING

```

Preamplifier: Impact 400
Source: IR
Detector: PDS KRT
Acquisition: 1
Transmitter: KRT
Sample spacing: 2.0000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 8.0
High pass filter: 200.0000
Low pass filter: 90000.0000

```

WORLD'S HISTORY

Collect sample
Background collected on Wed Mar 23 14:05:21 1994
Final format: VTransmittance
Resolution: 4.000 from 399.2414 to 4000.1294

Baseline Correct on Mon Sep 26 22:05:32 1994

Data format: Absorbance

Correction points: 23

1.0126 at 399.2414

2.0711 At 596.2222

0-9411 NL 346.2722
0-9417 NT 664 6378

0.7271 71.6 0.335

0.1729 ME 118.9182
0.5917 04 831 0861

0.761 / ME 021.4551
0.9859 + 0.78 0.706

U. 4051 mt. 0.70. 2705

0.4193 at 1110.0746

0.3366 at 1310.0186

0.3000 at 1515.0942

0.2771 at 1709.1064

0.2580 at 1067.4650

0.2226 wt 2307.4202

0.2177 at 2564.5091

0.2251 at 2501.2672

0.2731 25.7532
0.2736 27.00 0230

0.2326 2.39. A328
0.7514 2.39. 5420

U.S. 514 at 3125.5410

0-5149 at 3517-5074

0.5743 at 2556.3252

0.5A01 at 37AC.7008

0.5040 at 3827.2742

0.5001 at 3073.7A05

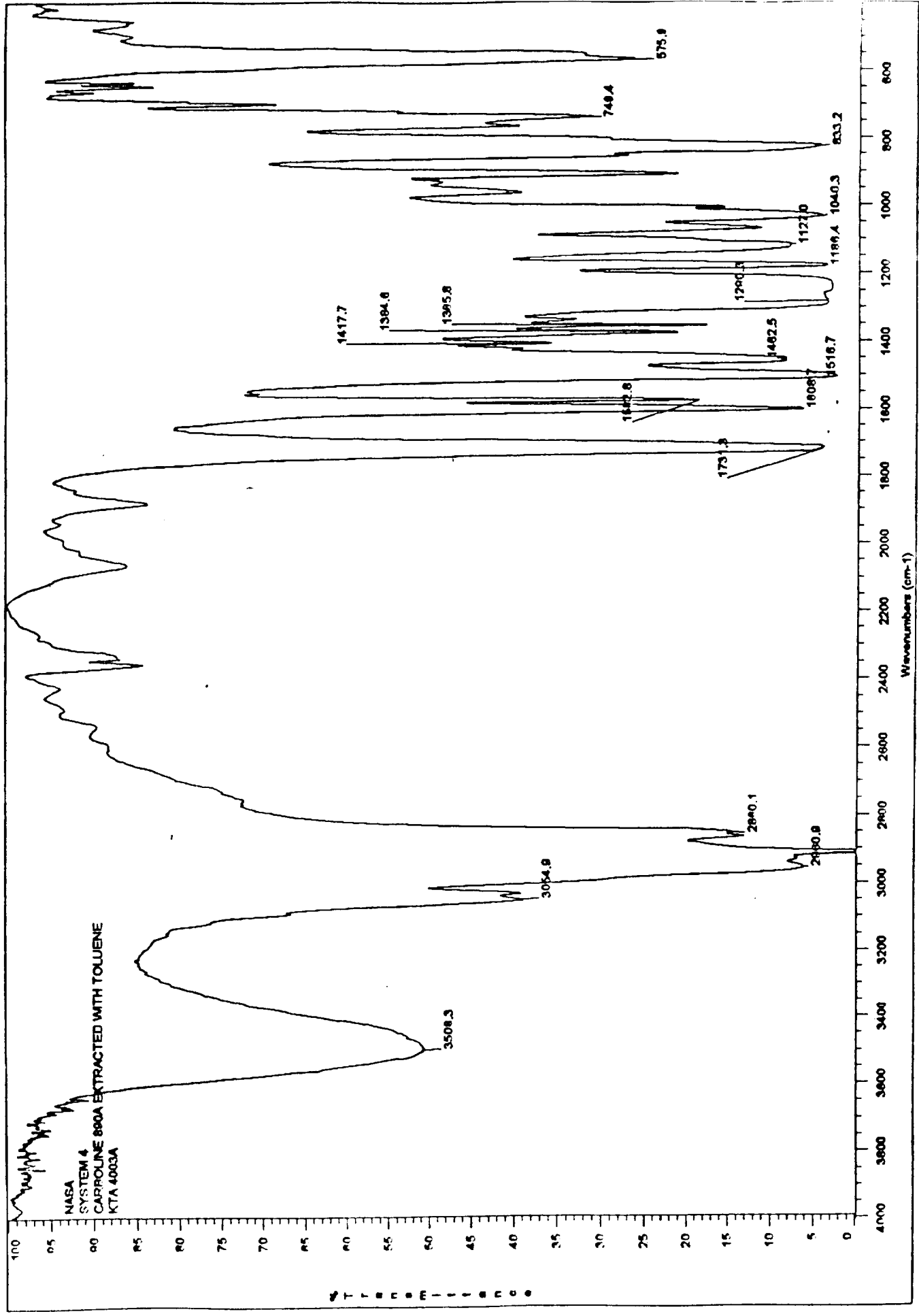
9.6040 44 4990.1284

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Spectrum 18. System 4. Topcl Carboline 890 Part A Extracted into Toluene



COLLECTION AND PROCESSING INFORMATION

title: system 4
 collected: Thu Apr 07 13:10:19 1994
 file name: A:\KRA0033.SPA
 comments: CARBOLINE 890A EXTRACTED WITH TOLUENE
 run 4007A

DATA COLLECTION INFORMATION

number of sample scans: 64
 collection length: 45.2 sec
 resolution: 4.000
 number of zero fillings: 0
 number of scan points: 3408
 number of FFT points: 8192
 laser frequency: 15798.8 cm-1
 interferogram peak position: 1024
 apodization: Happ-Genzel
 number of background scans: 64
 background gain: 4.0

DATA DESCRIPTION

number of points: 1869
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 first X value: 399.2414
 last X value: 4000.1284
 data spacing: 1.928702

INSTRUMENT DESCRIPTION

spectrometer: Impact 400
 source: IR
 detector: DTGS MTE
 accessories: 1
 beam splitter: MTE
 sample spacing: 2.0000
 digitizer bits: 16
 mirror velocity: 0.6329
 aperture: 1.00
 sample gain: 8.0
 high pass filter: 200.0000
 low pass filter: 9000.0000

DATA PROCESSING HISTORY

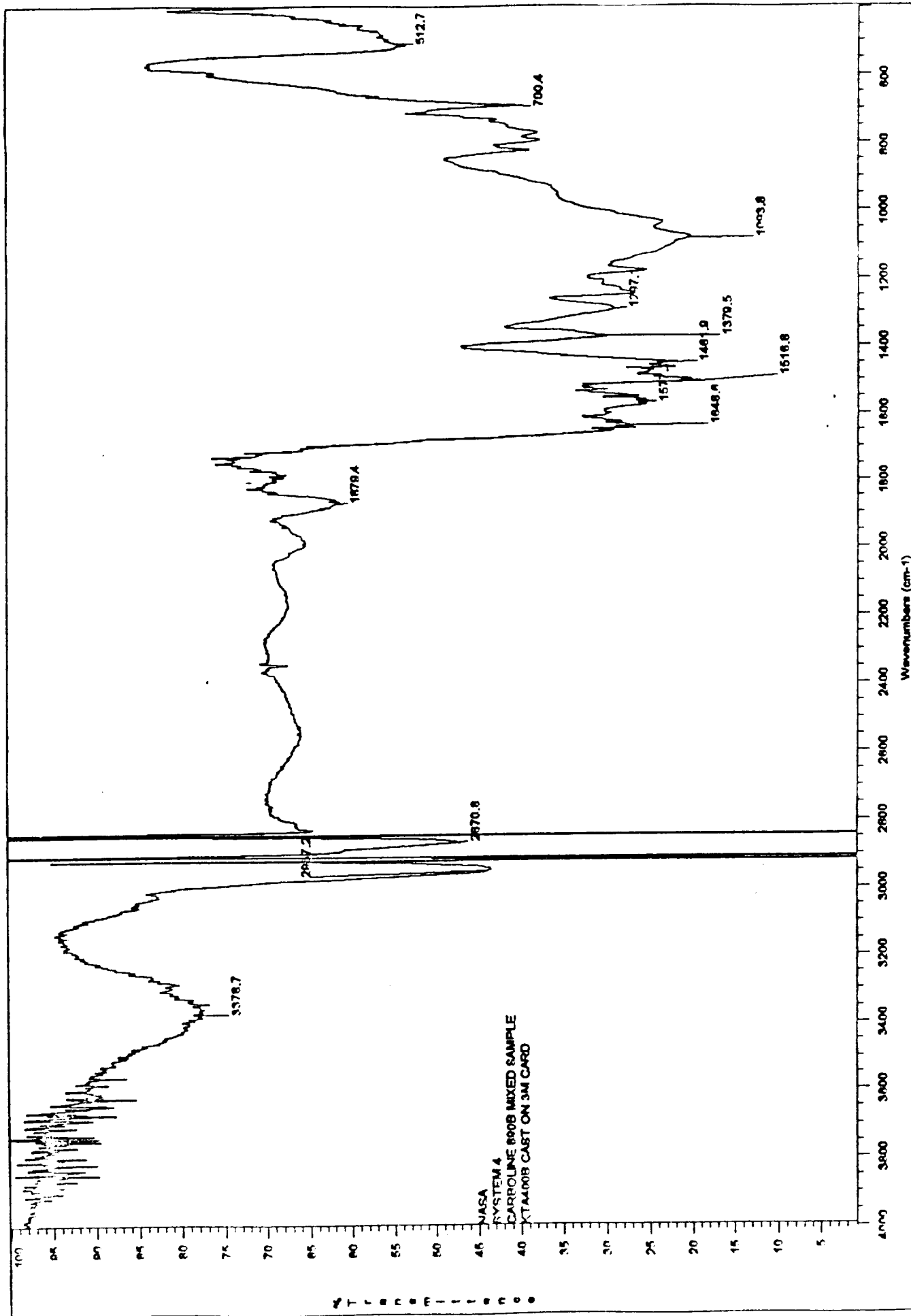
Collect Sample
 Background collected on Thu Apr 07 12:01:15 1994
 Final format: Absorbance
 Resolution: 4.000 from 399.2414 to 4000.1284
 Baseline Correct on Mon Sep 26 22:12:56 1994

Data Format: Absorbance

Correction points: 12

0.2103 at 399.2414
 0.1696 at 399.2854
 0.0096 at 1424.6196
 0.0502 at 2045.8782
 0.0426 at 2297.1476
 0.0553 at 2643.0103
 0.0655 at 2962.6870
 0.0502 at 3258.2371
 0.0248 at 3457.2913
 -0.0092 at 3674.4199
 -0.0439 at 4000.1284
 -0.0439 at 4000.1284

Spectrum 19. System 4. Topcoat. Carboline 890 Part B



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--- COLLECTION INFORMATION
 Number of sample scans: 64
 Collection length: 45.3 sec
 Resolution: 4,000
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 1579.0 cm-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 64
 Background gain: 4.0

```

CONCENTRATION DETECTION
Spectrometer: Impact 400
Source: IP
Parameter: pass rate
Accessories: 1
Name: amplifier KRC
Sample spacing: 2.0000
Pilot filter bits: 16
Micro velocity: 0.6729
Aperture: 1.00
Sample gain: 64.0
High pass filter: 200.0000
Low pass filter: 90000.0000

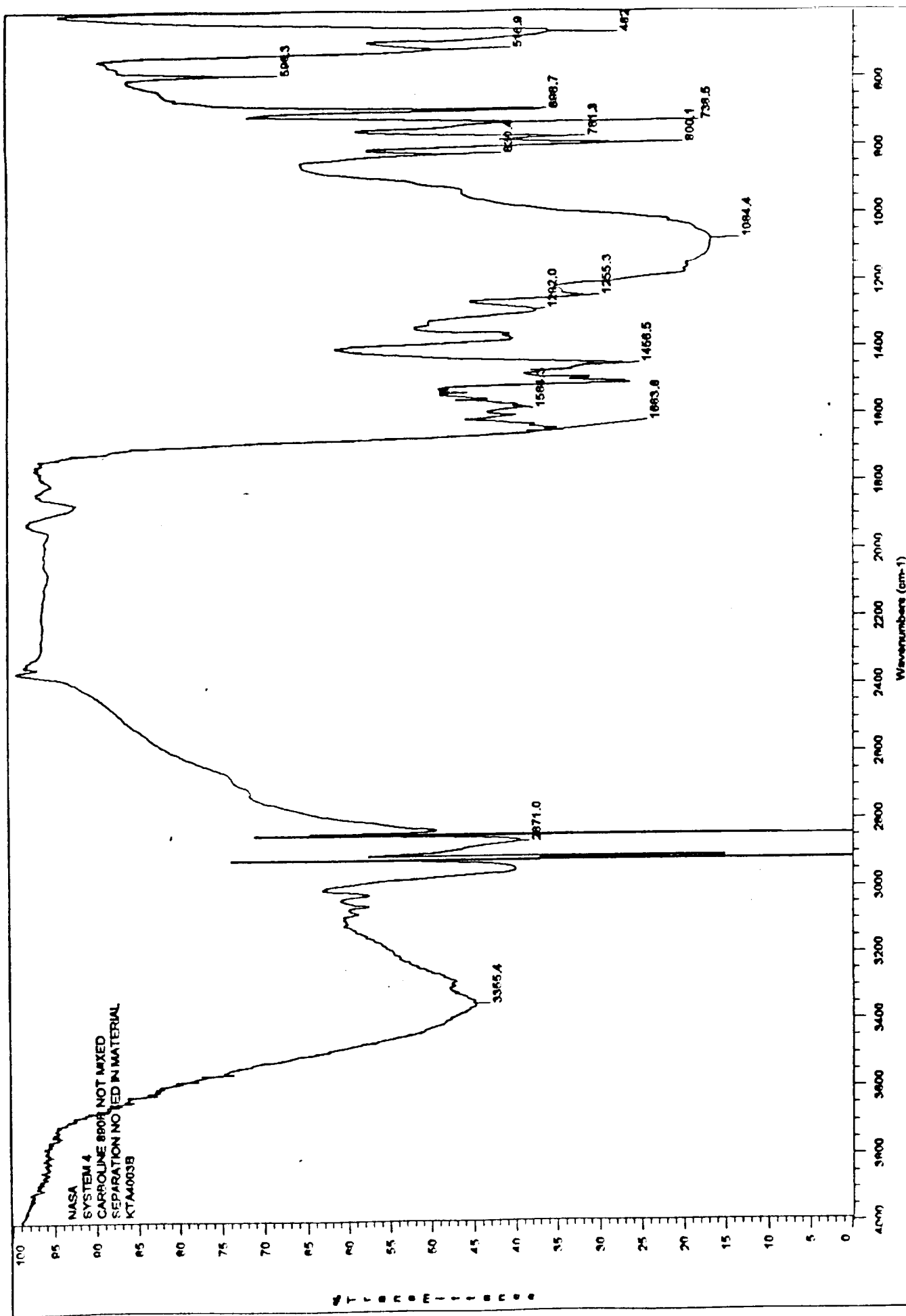
```

```

Baseline Correct on Mon Sep 26 22:29:29 1994
Data Format: Absorbance
Correction Points: 9
1.0410 at 300.2414
0.0927 at 344.0007
0.9774 at 704.8550
0.0541 at 1474.6106
0.0951 at 2226.0771
0.0575 at 3125.5410
0.8302 at 4530.2302
0.0951 at 6000.1284
0.0951 at 6000.1284

```

Spectrum 20. System 4. Topcoat. arbolite 890 Part B not mixed.
Material from top of can.



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COLLECTION AND PROCESSING INFORMATION

File: 890004
Collected: Wed Mar 23 14:35:36 1994
File name: A:\DATA\0013.SPA
Comments: CANNOLITE 8908 NOT MIXED
ANALYSIS DONE IN MATERIAL
8900038

DATA COLLECTION INFORMATION

Number of sample scans: 64
Collection length: 45.2 sec
Resolution: 4.000
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15799.0 CM-1
Interferogram peak position: 1024
Acceleration: HARP-Genzel
Number of background scans: 64
Background gain: 4.0

DATA DESCRIPTION

Number of points: 1869
Y-axis: Wavenumbers (CM-1)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.028702

INSTRUMENT DESCRIPTION

Spectrometer: Jansco 400
Source: IR
Detector: DMS KTE
Amplifier: 1
Beam splitter: KTE
Sample spacing: 2.0000
Photocell bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 8.0
High pass filter: 200.0000
Low pass filter: 9000.0000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Wed Mar 23 14:05:21 1994
Final format: Transmittance
Resolution: 4.000 from 399.2414 to 4000.1284

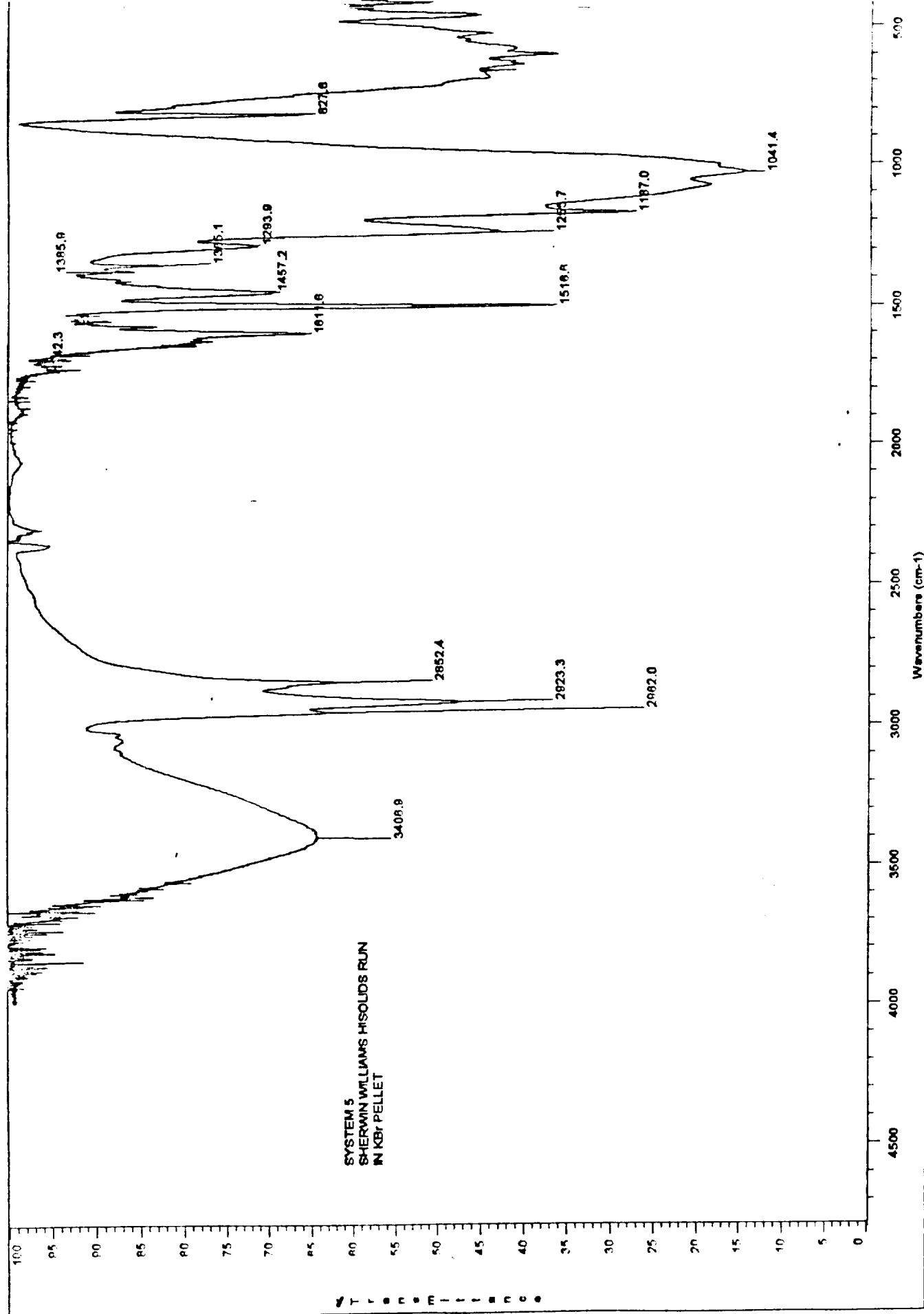
Baseline Correct on Mon Sep 26 22:19:00 1994

Data format: Absorbance

Correction points: 8

0.2251 at 399.2414
0.1160 at 830.5510
0.1063 at 1645.8850
0.1246 at 2365.5549
0.1593 at 3457.2813
0.1593 at 3716.6416
0.1509 at 4000.1284
0.1599 at 4000.1284

Spectrum 21. System 5. Sherwin Williams Hi Solids Part A and
Part B Combined as Cured.



THE. OVER 5

DATA COLLECTION INFORMATION

DATA RECEPTION

QUESTIONS	DESCRIPTION
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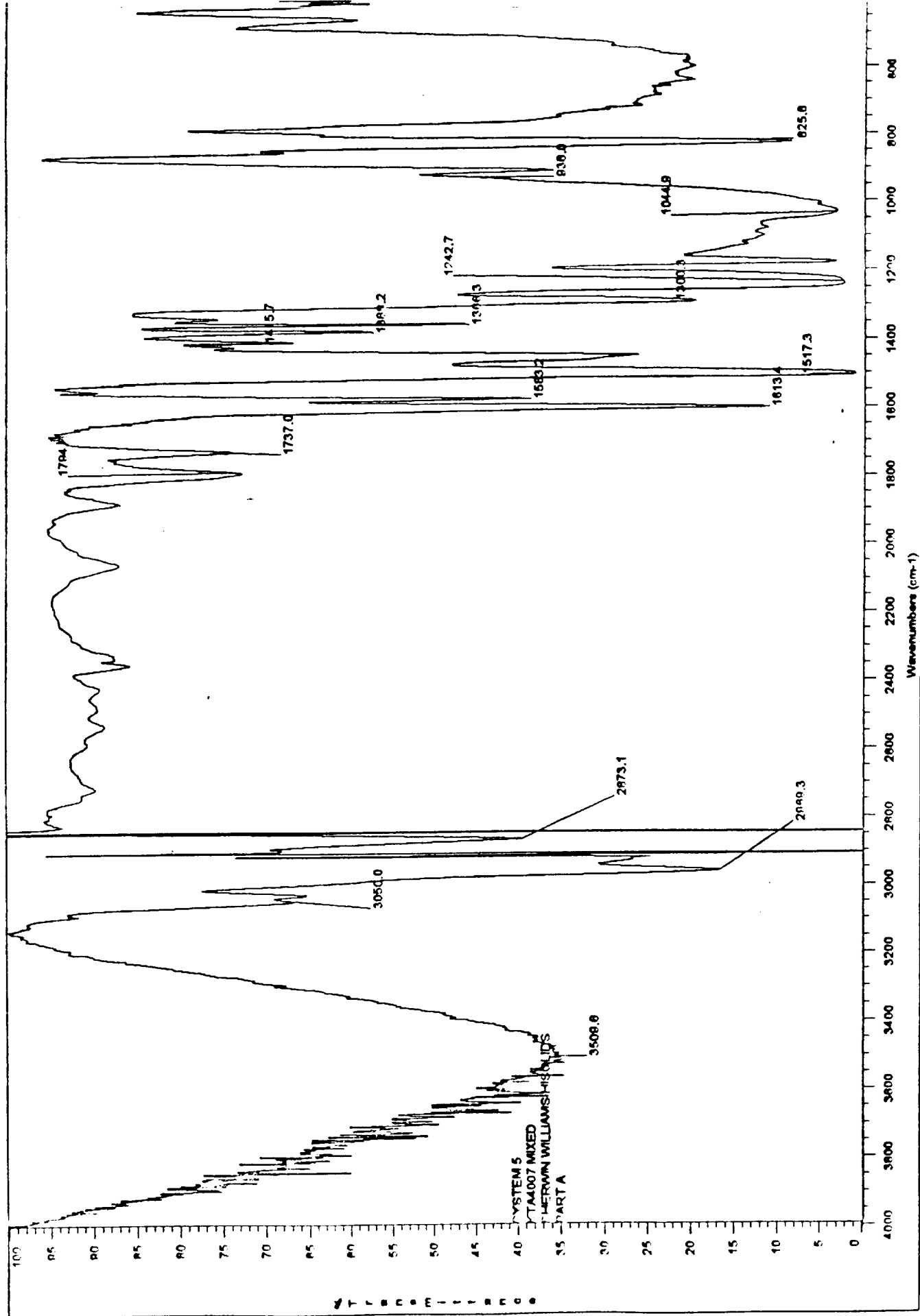
NAME: _____ DOB: _____

Baseline correct on 01 15:06:22 1994

Baseline Current on Sat Oct 01 15:13:44 1994

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Spectrum 22. System 5. Sherwin Williams Hi Solids Part A



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 5
 Collected: Wed Mar 23 20:50:17 1994
 File name: A:\KTA00019.SPA
 Comments: KTA4007 MIXED
 SHEPHERD WILLIAMS HISOLIDS
 PART A

DATA COLLECTION INFORMATION
 Number of sample scans: 64
 Collection length: 45.3 sec
 Resolution: 4.000
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 64
 Background gain: 4.0

DATA DESCRIPTION
 Number of points: 1868
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

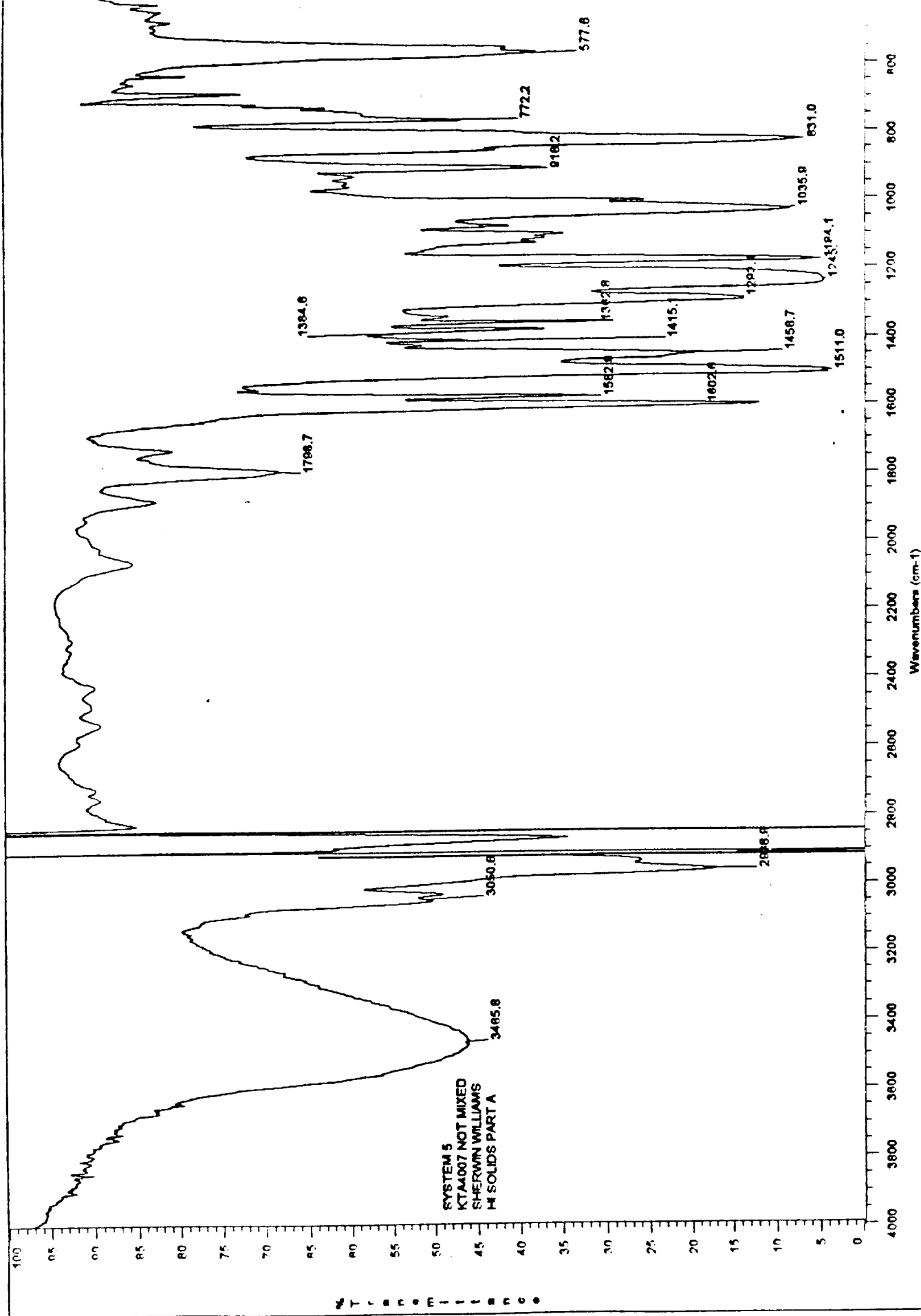
SPECTROMETER DESCRIPTION
 Spectrometer: Impact 400
 Source: IR
 Detector: DTGS MTE
 Accessory: 1
 Beam splitter: KBr
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 16.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY
 Collect Sample
 Background collected on Wed Mar 23 20:03:46 1994
 Final format: Absorbance
 Resolution: 4.000 from 399.2414 to 4000.1284

Baseline Correct on Sat Oct 01 15:31:37 1994
 Data format: Absorbance
 Correction points: 8
 1.2084 at 399.2414
 0.7740 at 809.3928
 0.2962 at 1629.6953
 0.3931 at 2715.3899
 0.5569 at 3113.4718
 0.7740 at 3523.6292
 1.2084 at 4000.1284
 1.2084 at 4000.1284

Baseline Correct on Sat Oct 01 15:32:42 1994
 Data format: Absorbance
 Correction points: 6
 0.1124 at 399.2414
 0.0511 at 622.4121
 0.0400 at 881.7725
 0.0006 at 1810.6443
 -0.0029 at 3994.0967
 -0.0029 at 4000.1284

Spectrum 23. System 5. Sherwin Williams Hi Solids Part A not mixed. Material from top of can.



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 5
 Collected: Wed Mar 23 20:43:33 1994
 File name: A:\KTA00018.SPA
 Comments: KTA0007 NOT MIXED SHERWIN WILLIAMS HI SOLIDS PART A

DATA COLLECTION INFORMATION

Number of sample scans: 64
 Collection length: 45.3 sec
 Resolution: 4.000
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 64
 Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS MTE
 Accessory: 1
 Beam splitter: KBr
 Sample spacing: 2.8000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 4.0
 High pass filter: 200.0000
 Low pass filter: 9000.0000

DATA PROCESSING HISTORY

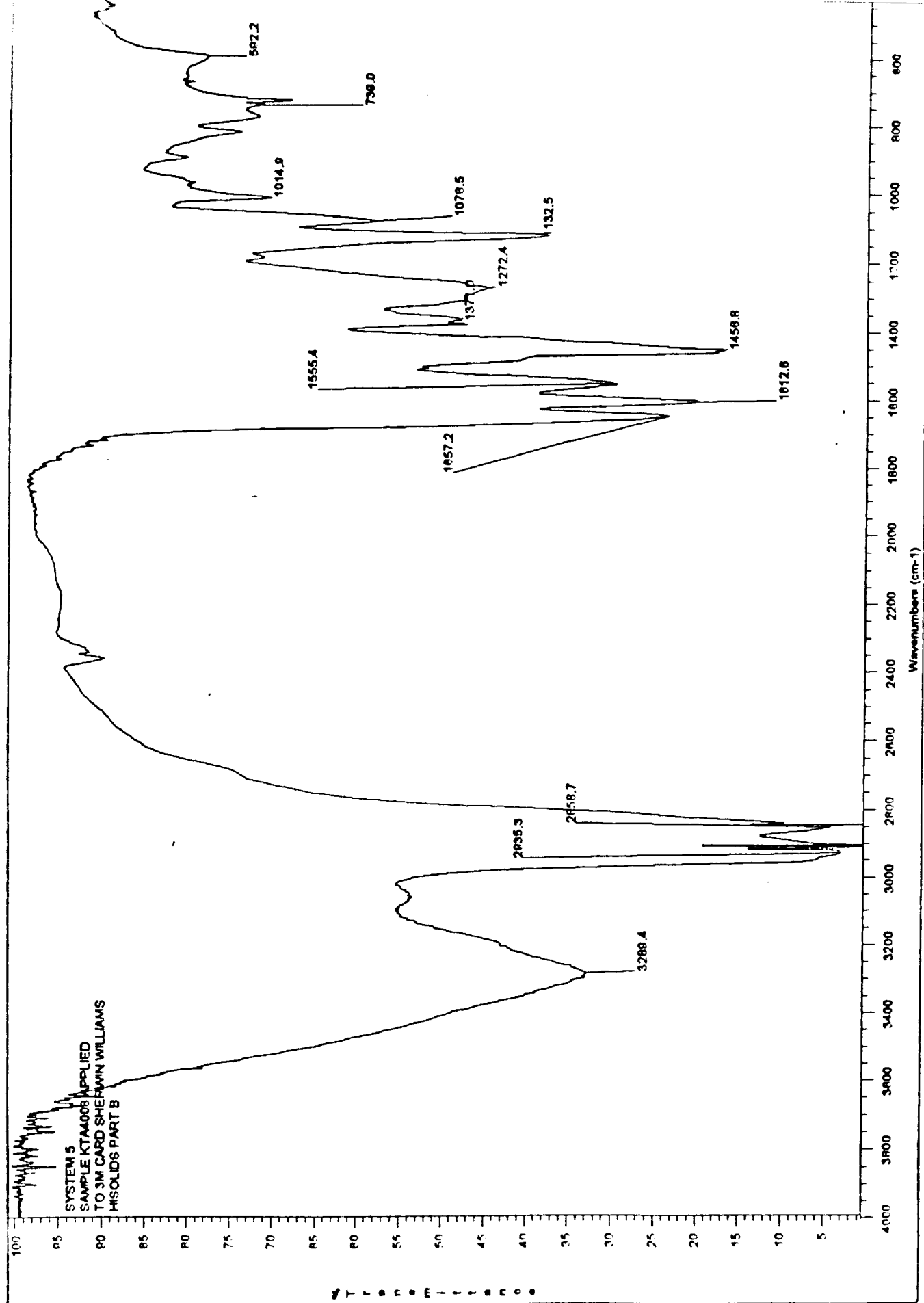
Collect Sample
 Background collected on Wed Mar 23 20:03:46 1994
 Final format: Absorbance
 Resolution: 4.000 from 399.2414 to 4000.1284

Baseline Correct on Sat Oct 01 15:21:15 1994

Data format: Absorbance
 Correction points: 3
 0.1150 at 399.2414
 -0.1071 at 4000.1284
 -0.1071 at 4000.1284

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Spectrum 24. System 5. Sherwin Williams Hi Solids Part B



COLLECTION AND PROCESSING INFORMATION

Title: even5
 Collected: Wed Mar 23 21:01:05 1994
 File name: A:\KTR00021.SPA
 Comments: SAMPLE KTR4008 APPLIED
 TO TM CARD SURPAIN WILLIAMS
 MISOLIDS PART B

DATA COLLECTION INFORMATION

Number of sample scans: 64
 Collection length: 45.3 sec
 Resolution: 4.000
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 64
 Background gain: 4.0

DATA DESCRIPTION

Number of points: 1868
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS KBr
 Accessory: 1
 Beam splitter: KBr
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 4.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
 Background collected on Wed Mar 23 20:03:46 1994
 Final format: Absorbance
 Resolution: 4.000 from 399.2414 to 4000.1284

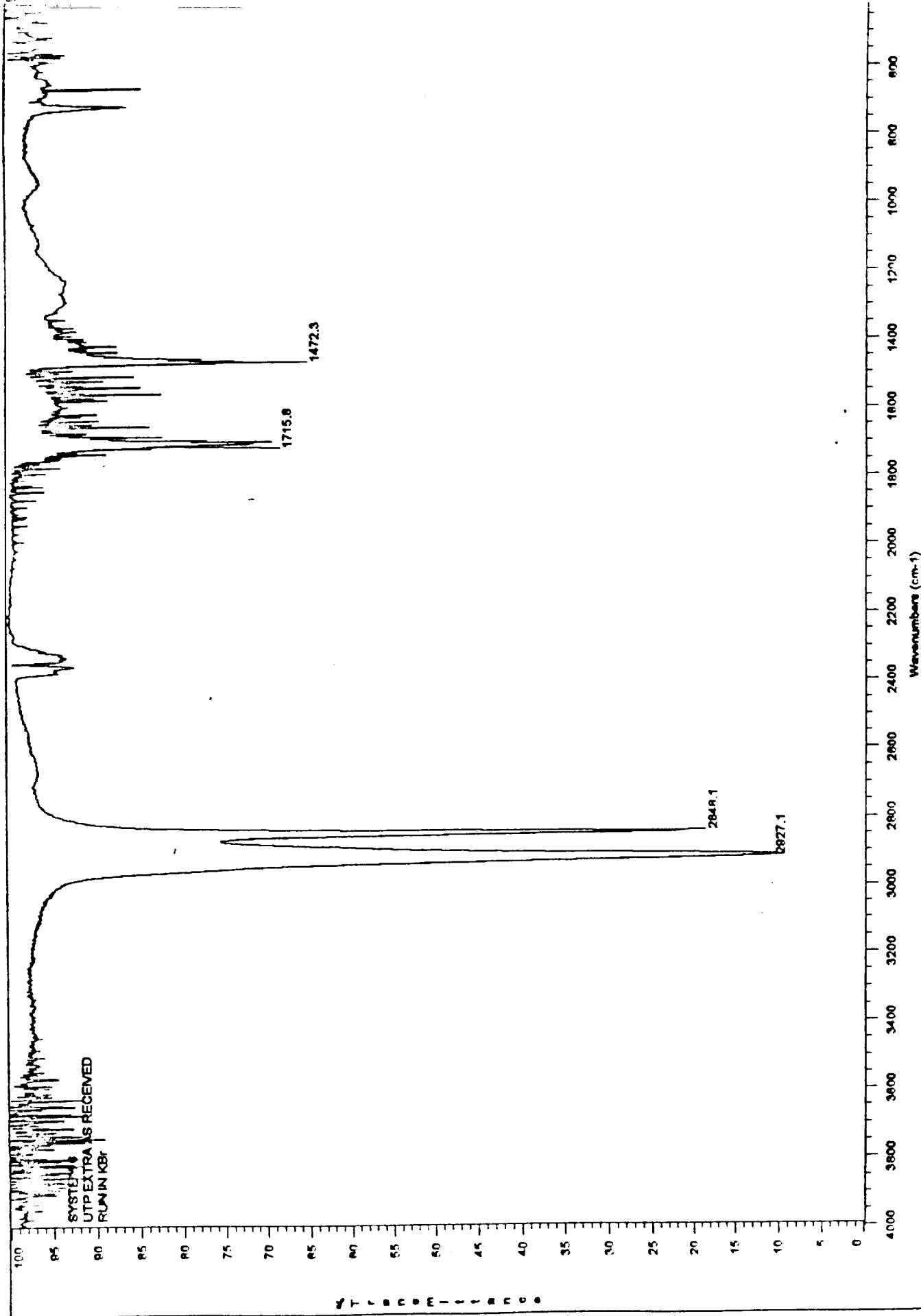
Baseline Correct on Sat Oct 01 15:39:46 1994

Data format: Absorbance

Correction points: 10

0.1126 at 399.2414
 0.1371 at 616.3804
 0.1417 at 960.1836
 0.1230 at 1376.3665
 0.0478 at 1750.3281
 0.0338 at 2492.2192
 0.0338 at 2661.1030
 0.0201 at 3179.8239
 -0.1373 at 4000.1284
 -0.1373 at 4000.1284

Spectrum 25. System 6. UT Plast



COLLECTION AND PROCESSING INFORMATION

Title: SPECTRA 6
 Collected: Wed Apr 27 16:35:15 1994
 File name: A:\KTA00040.SPA
 Comments: ITR WYDA AS RECEIVED
 RUN IN KIR

DATA COLLECTION INFORMATION

Number of sample scans: 64
 Collection length: 141.4 sec
 Resolution: 2.000
 Level of zero filling: 0
 Number of scan points: 9504
 Number of FFT points: 16384
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 1024
 Modulation: Happ-Genzel
 Number of background scans: 64
 Background gain: 1.0

DATA DESCRIPTION

Number of points: 3734
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 400.1813
 Last X value: 3999.8943
 Data spacing: 0.964292

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: MTEC KBr
 Accessory: 1
 Sample holder: Unknown
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.4178
 Wavelength: 34.98
 Sample gain: 1.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

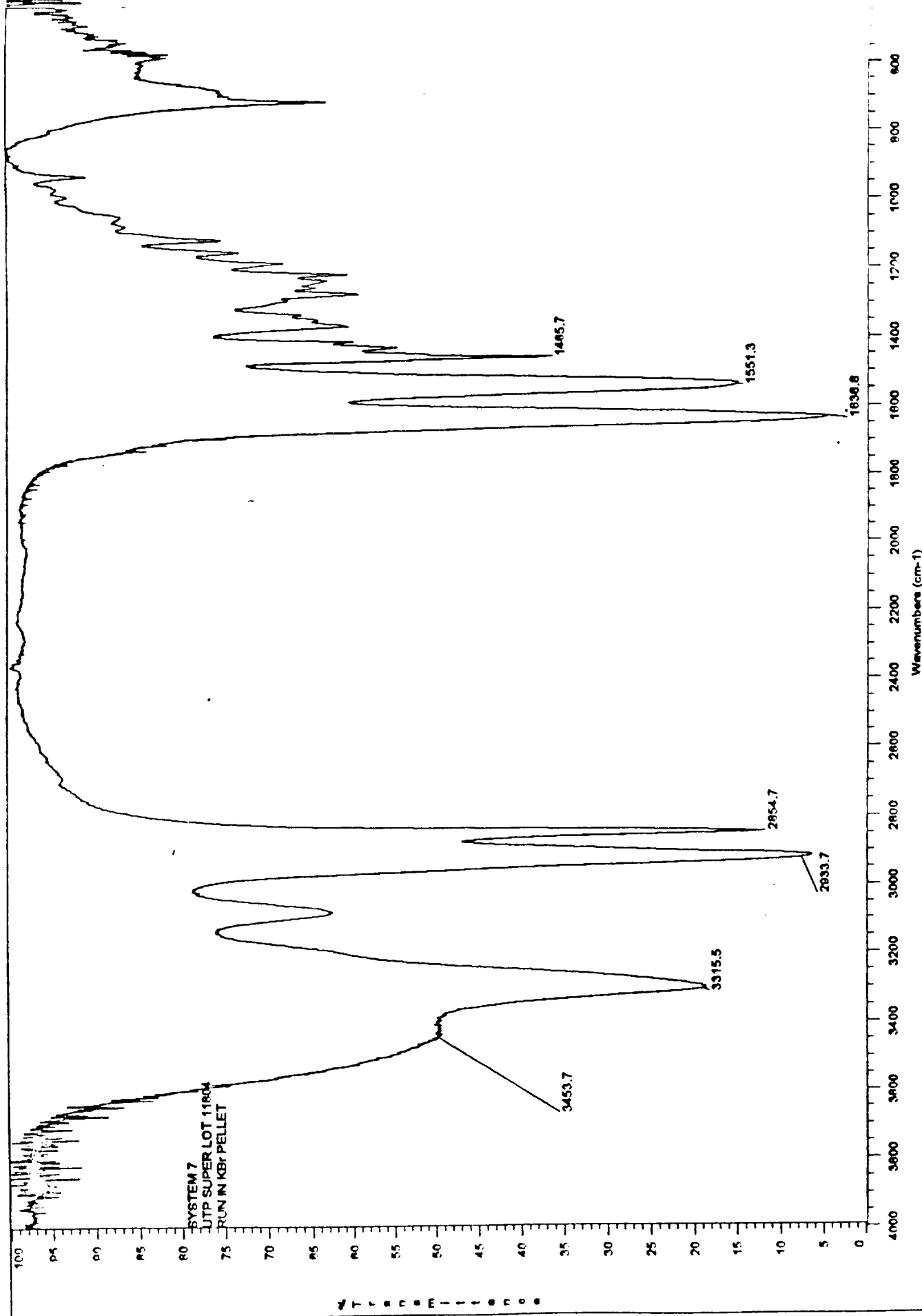
DATA PROCESSING HISTORY

Collect Sample
 Background collected on Wed Apr 27 12:58:24 1994
 Final format: Transmittance
 Resolution: 2.000 from 400.1813 to 3999.8943

Baseline Correct on Sat Oct 01 15:59:27 1994

Data format: Absorbance
 Correction points: 13
 -0.0971 at 400.1813
 -0.0765 at 740.9014
 -0.0541 at 1111.6804
 -0.0316 at 1600.0023
 -0.0241 at 2022.1581
 -0.0129 at 2305.5518
 0.0120 at 2365.9481
 0.0320 at 2365.9481
 0.0320 at 2365.9481
 -0.0129 at 2377.9077
 0.0114 at 2041.1694
 0.0114 at 2093.8547
 0.0114 at 3000.8943

Spectrum 26. System 7. UT Plast Super/Aluminized UT Plast



C-4.

COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 7
 Collected: Wed Apr 27 14:21:01 1994
 File name: A:\KTA00038.SPA
 Comments: UTP SUPER LOT 11804
 RUN IN PIR PELLET

DATA COLLECTION INFORMATION
 Number of sample scans: 64
 Collection length: 141.4 sec
 Resolution: 2.000
 Levels of zero filling: 0
 Number of scan points: 9504
 Number of FFT points: 16384
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 1024
 Apodization: Happ-Genzel
 Number of background scans: 64
 Background gain: 1.0

DATA DESCRIPTION
 Number of points: 3734
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 400.1813
 Last X value: 3999.8843
 Data spacing: 0.964292

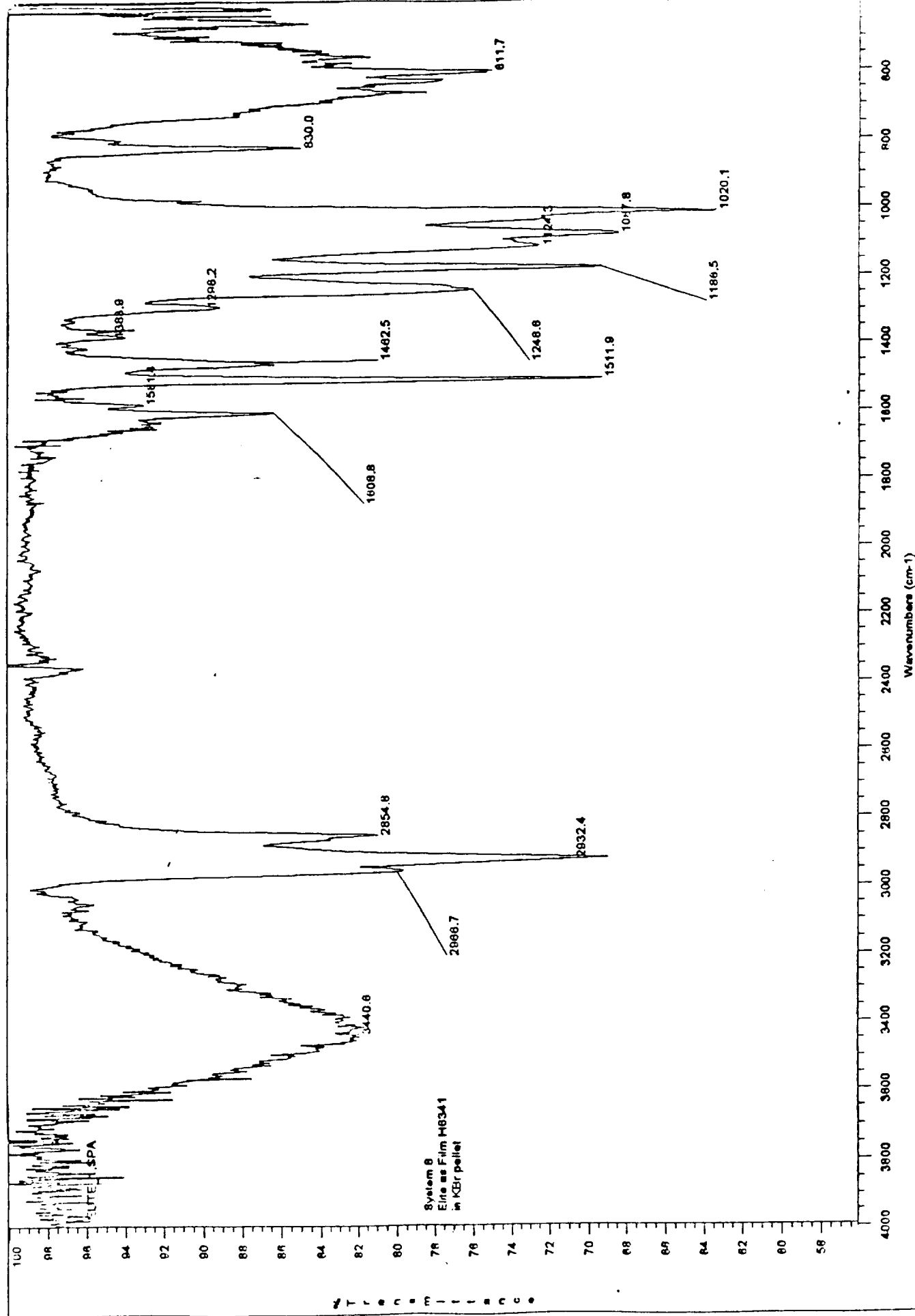
SPECTROMETER DESCRIPTION
 Spectrometer: Impact 400
 Source: IR
 Detector: DTGS MTE
 Accessory: 1
 Beam splitter: Unknown
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.4178
 Aperture: 34.98
 Sample gain: 1.0
 High pass filter: 200.0000
 Low pass filter: 94000.0000

DATA PROCESSING HISTORY
 Collect Sample
 Background Collected on Wed Apr 27 12:58:24 1994
 Final format: Transmittance
 Resolution: 2.000 from 400.1813 to 3999.8843

Baseline Correct on Sat Oct 01 15:49:23 1994
 Data format: Absorbance
 Correction points: 4
 -0.0002 at 400.1813
 -0.0109 at 2649.2419
 0.0100 at 3999.8843
 0.0109 at 3999.8843

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Spectrum 27. System 8. Elite



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COLLECTION AND PROCESSING INFORMATION

Title: System 8
Collected: Thu Sep 15 12:13:35 1994
File name: AVALITE 1.SPA
Comments: Film on Film H6341
in KBr pellet

DATA COLLECTION INFORMATION

Number of sample scans: 32
Collection length: 22.7 sec
Resolution: 3.875
Levels of zero fillings: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm-1
Interferogram peak position: 985
Apodization: Happ-Genzel
Number of background scans: 32
Background gain: 16.0

DATA DESCRIPTION

Number of points: 1668
Y-axis: Wavenumbers (cm-1)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: JF
Detector: PM3 KHz
Accessories: 1
Beam splitter: KBr
Sample spacing: 2.0000
Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 32.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Thu Sep 15 12:03:47 1994
Final format: Transmittance
Resolution: 3.875 from 399.2414 to 4000.1284

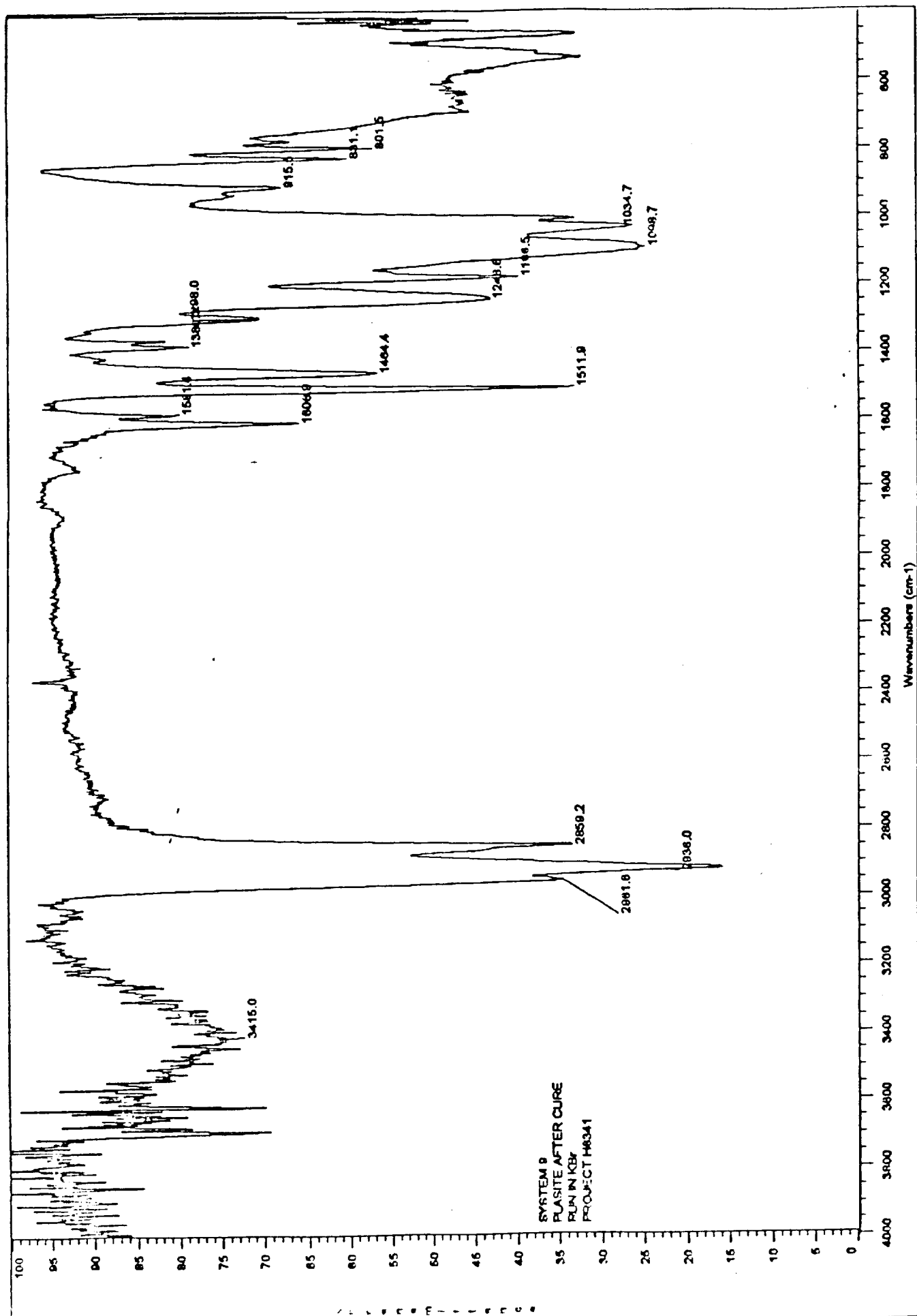
Baseline Correct on Mon Oct 10 16:23:46 1994

Data format: Absorbance

Correction points: 13

0.1621 at 399.2414
0.1584 at 501.7793
0.1547 at 664.6335
0.1104 at 867.6458
0.1250 at 1171.2910
0.1213 at 1581.4421
0.1157 at 1709.5811
0.1199 at 2293.1753
0.1659 at 2347.4600
0.1476 at 2377.6182
0.1844 at 3010.9399
0.2141 at 4000.1284
0.2141 at 4000.1284

Spectrum 28. System 9. Plasite, Part A and Part B Combined as Cured.



COLLECTION AND PROCESSING INFORMATION

Title: system 9
 Collected: Thu Sep 15 09:31:37 1994
 File name: A:\PLAS 1.SPA
 Comments: PLASITE AFTER CURE
 RUN IN FPC
 PROJECT H6341

DATA COLLECTION INFORMATION

Number of sample scans: 32
 Collection length: 23.4 sec
 Resolution: 3.875
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 986
 Apodization: Hann-Genzel
 Number of background scans: 32
 Background gain: 16.0

DATA DESCRIPTION

Number of points: 1668
 X-axis: Wavenumbers (cm-1)
 Y-axis: Attenuance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS KMC
 Accessory: 1
 Beam splitter: KBr
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 64.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect sample
 Background collected on Thu Sep 15 09:32:48 1994
 Final format: Attenuance
 Resolution: 3.875 from 399.2414 to 4000.1284

Baseline Correct on Sun Sep 25 21:06:19 1994

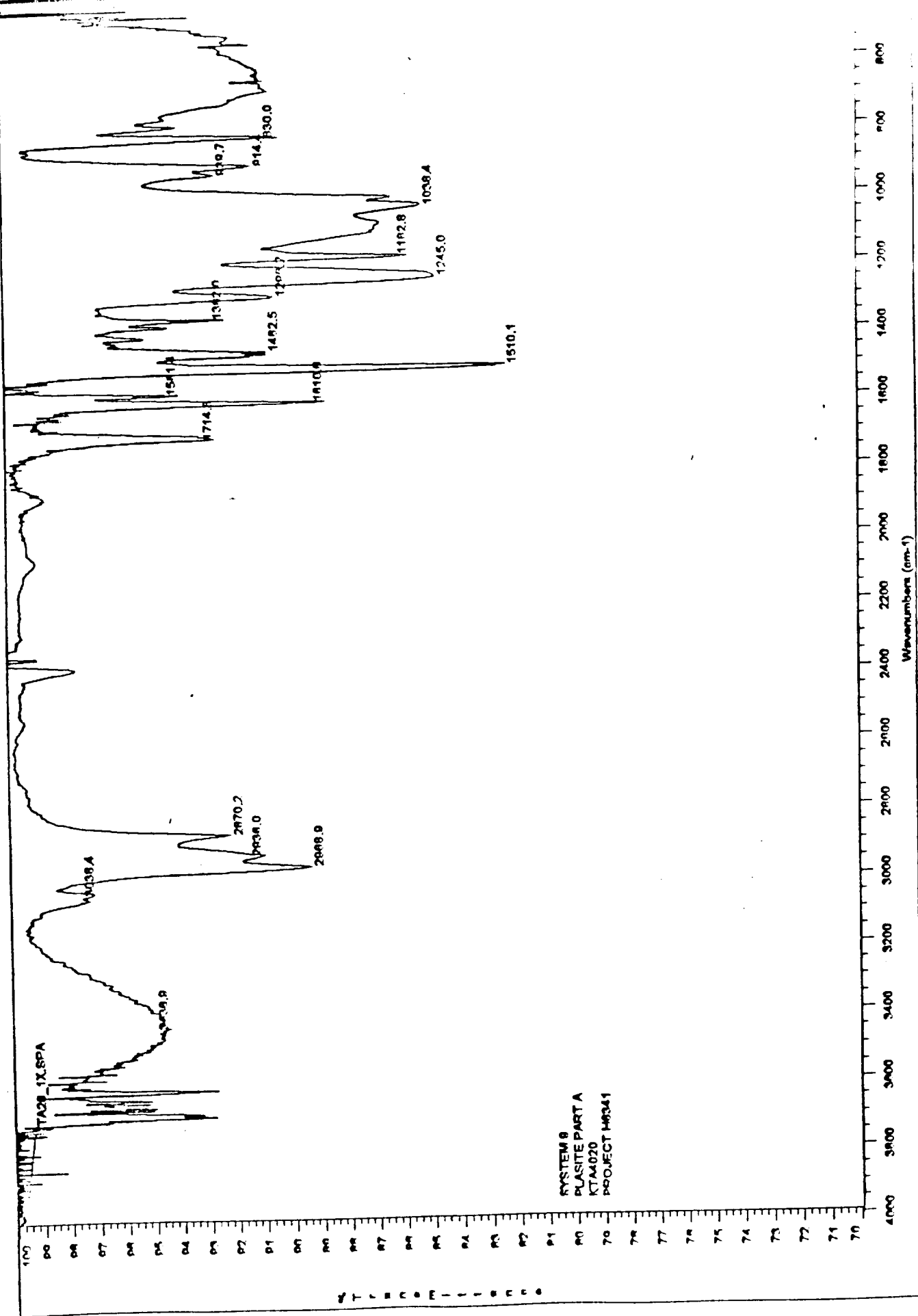
Data format: Absorbance

Correction points: 15

0.9606	at 399.2414
0.3069	at 411.3047
0.2771	at 471.4211
0.2693	at 658.6018
0.2771	at 869.7090
0.2846	at 966.2153
0.3599	at 1352.2400
0.3663	at 1557.3157
0.4034	at 1714.1382
0.5891	at 2353.4917
0.8863	at 3191.9892
0.9531	at 3614.1038
0.9457	at 3728.7049
0.9606	at 4000.1284
0.9606	at 4000.1284

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Spectrum 29. System 9. Plaste Part A.



COLLECTION AND PROCESSING INFORMATION

Title: system 9
 Collected: Wed Sep 14 16:12:25 1994
 File name: A:\KTA20.1.SPA
 Comments: PLATING PART A
 V34020
 PROJECT H6341

DATA COLLECTION INFORMATION

Number of sample scans: 32
 Collection length: 22.6 sec
 Resolution: 3.875
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FT points: 8192
 Laser frequency: 15798.0 cm-1
 Interferogram peak position: 985
 Acquisition: Matt-Genzel
 Number of background scans: 32
 Background gain: 2.0

DATA DESCRIPTION

Number of points: 1668
 X-axis: Wavenumbers (cm-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
 Source: IR
 Detector: DTGS KBr
 Accuracy: 1
 Beam splitter: KBr
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 2.0
 High pass filter: 200.0000
 Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect sample
 Background collected on Wed Sep 14 16:08:08 1994
 Final format: transmittance
 Resolution: 3.875 from 399.2414 to 4000.1284

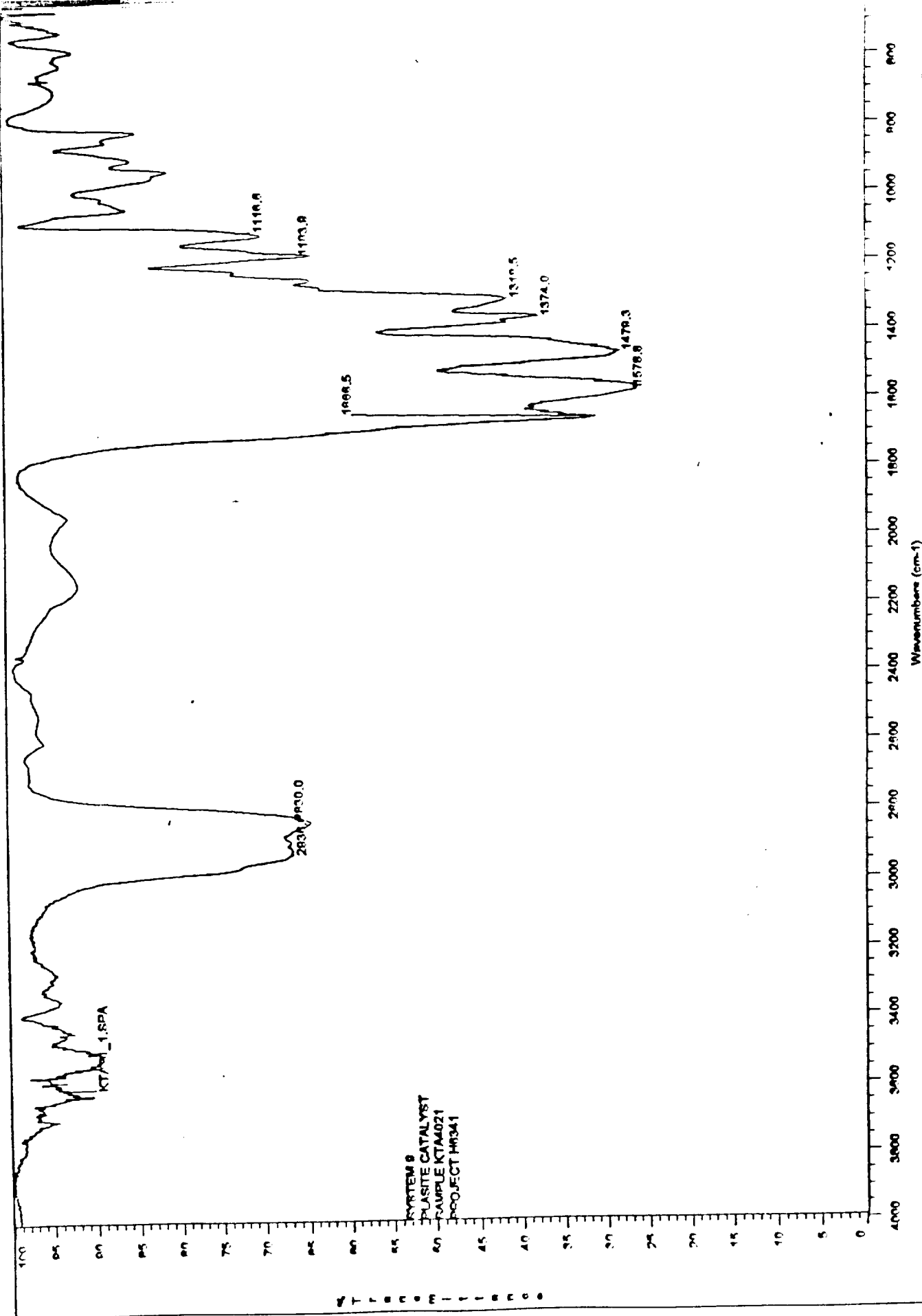
Baseline correct on Sun Sep 25 20:51:22 1994

Data format: Absorbance

Correction points: 16

0.0626 at 399.2414
 0.0979 at 429.3097
 0.0870 at 501.7793
 0.0730 at 737.0132
 0.0656 at 948.1204
 0.0567 at 1225.5757
 0.0495 at 1539.2207
 0.0455 at 1928.7393
 0.0470 at 2172.5425
 0.0479 at 2299.2070
 0.0426 at 2325.3667
 0.0374 at 2377.6182
 0.0500 at 2413.8081
 0.0411 at 3143.6360
 0.0626 at 4000.1284
 0.0626 at 4000.1284

Spectrum 30. System 9. Plasite Part B (Catalyst)



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 9
 Collected: Wed Sep 14 15:55:40 1994
 File name: A:\KTA21.2.SPA
 Comments: PLASITE CATALYST
 Sample KTA4021
 Project KTA41

DATA COLLECTION INFORMATION
 Number of sample scans: 32
 Collection length: 25.6 sec
 Resolution: 3.875
 Levels of zero filling: 0
 Number of scan points: 5408
 Number of FFT points: 8192
 Laser frequency: 15798.0 CM-1
 Interferogram peak position: 985
 Apodization: Happ-Genzel
 Number of background scans: 32
 Background gain: 2.0

DATA DESCRIPTION
 Number of points: 1868
 X-axis: Wavenumbers (CM-1)
 Y-axis: Transmittance
 First X value: 399.2414
 Last X value: 4000.1284
 Data spacing: 1.928702

SPECTROSCOPY DESCRIPTION
 Spectrometer: Impact 400
 Source: IR
 Detector: DTGS MTE
 Accessory: 1
 Beam splitter: MTE
 Sample spacing: 2.0000
 Digitizer bits: 16
 Mirror velocity: 0.6329
 Aperture: 1.00
 Sample gain: 4.0
 High pass filter: 200.0000
 Low pass filter: 9000.0000

DATA PROCESSING HISTORY
 Collect Sample
 Background Collected on Wed Sep 14 15:53:07 1994
 Final format: Transmittance
 Resolution: 3.875 from 399.2414 to 4000.1284

Baseline Correct on Wed Sep 14 16:00:35 1994
 Data format: Absorbance
 Correction points: 21
 0.1065 at 399.2414
 0.4580 at 447.4946
 0.5752 at 550.0325
 0.6192 at 570.6550
 0.6045 at 785.2661
 0.3701 at 1086.8479
 0.2090 at 1762.3914
 0.1797 at 1943.3403
 0.2968 at 2202.7007
 0.3262 at 2440.9878
 0.3848 at 2600.7888
 0.5459 at 2757.6113
 0.7888 at 3059.1931
 0.8525 at 3187.7627
 0.9121 at 3288.3953
 0.9121 at 3300.9331
 0.8096 at 3475.3760
 0.5459 at 3565.8506
 0.2923 at 3626.1670
 0.1065 at 3698.5466
 0.1065 at 4000.1284

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COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 10
Collected: Thu Sep 15 09:03:30 1994
File name: A:\AQUATA_2.SPA
Comments: AQUATAPOXY AS CAST
IN KBr PELLET
H6341

DATA COLLECTION INFORMATION

Number of sample scans: 32
Collection length: 26.3 sec
Resolution: 3.875
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm-1
Interferogram peak position: 987
Apodization: Happ-Genzel
Number of background scans: 32
Background gain: 32.0

DATA DESCRIPTION

Number of points: 1868
X-axis: Wavenumbers (cm-1)
Y-axis: %Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTGS KBr
Accessory: 1
Beam splitter: KBr
Sample description: 0.0000

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Digitizer bits: 16
Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 32.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY

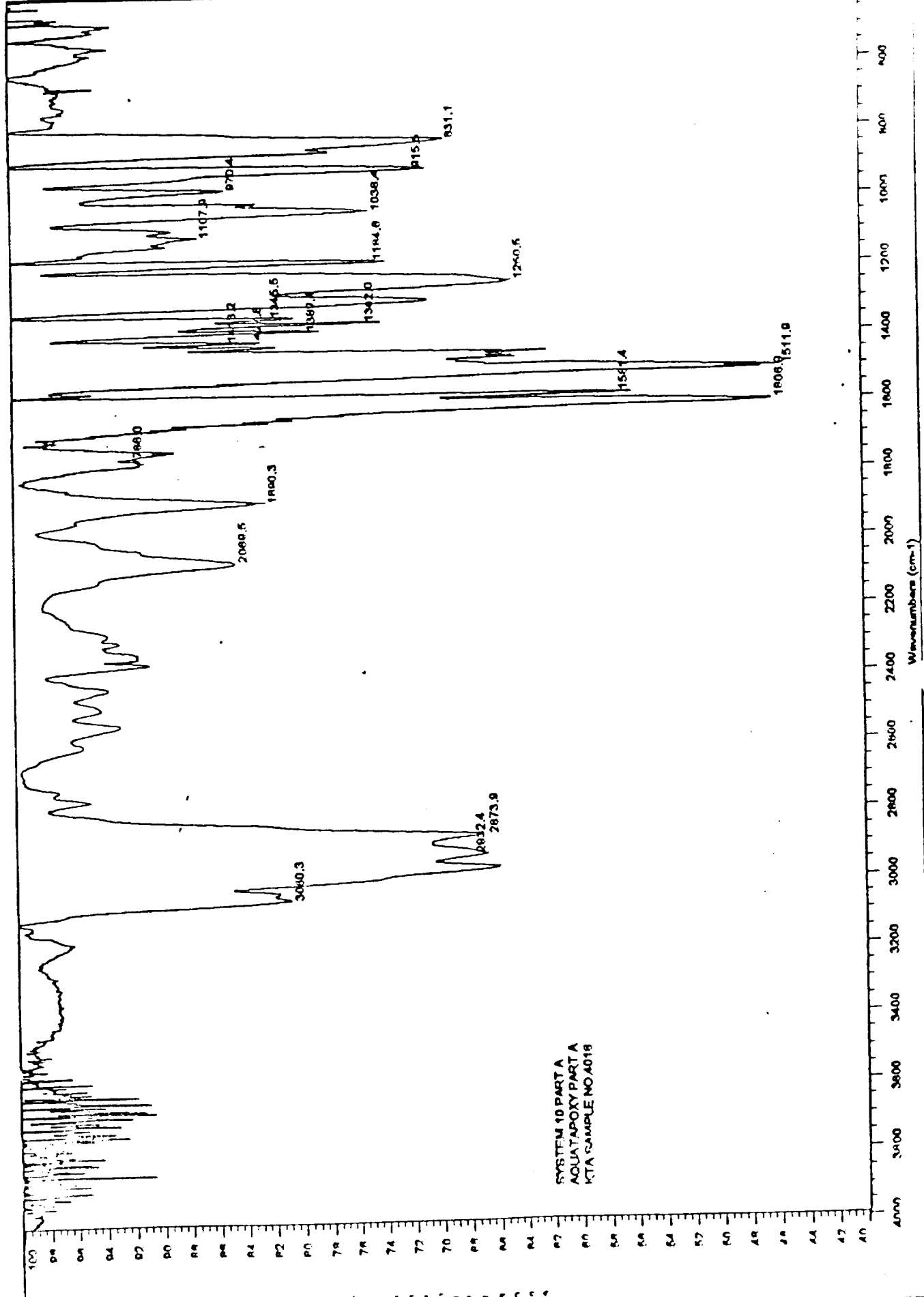
Collect Sample
Background collected on Thu Sep 15 09:04:37 1994
Final format: %Transmittance
Resolution: 3.875 from 399.2414 to 4000.1284

Automatic Baseline Correct on Thu Sep 15 09:14:34 1994
Data format: Absorbance
Corrected from 4000.0000 to 400.0000

Baseline Correct on Sun Sep 25 20:44:09 1994

Data format: Absorbance
Correction points: 11
-0.0059 at 399.2414
0.1010 at 411.3047
0.0238 at 495.7476
-0.0446 at 869.7090
-0.0802 at 1834.7710
-0.0743 at 2317.3018
-0.0832 at 2371.5864
-0.0624 at 2407.7764
-0.0208 at 3710.6099
-0.0059 at 3994.0967
-0.0059 at 4000.1284

Spectrum 32. System 10. Aquatapoxy Part A.



SYSTEM 10 PART A
AQUATAPOXY PART A
KTA SAMPLE NO. A018

COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 10 PART A
Collected: Wed Sep 14 15:22:15 1994
File name: A:\KTA18_2.SPA
Comments: AQUATAPOXY PART A
KTA SAMPLE NO.4018

DATA COLLECTION INFORMATION

Number of sample scans: 32
Collection length: 47.5 sec
Resolution: 3.875
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm-1
Interferogram peak position: 986
Apodization: Happ-Genzel
Number of background scans: 32
Background gain: 2.0

DATA DESCRIPTION

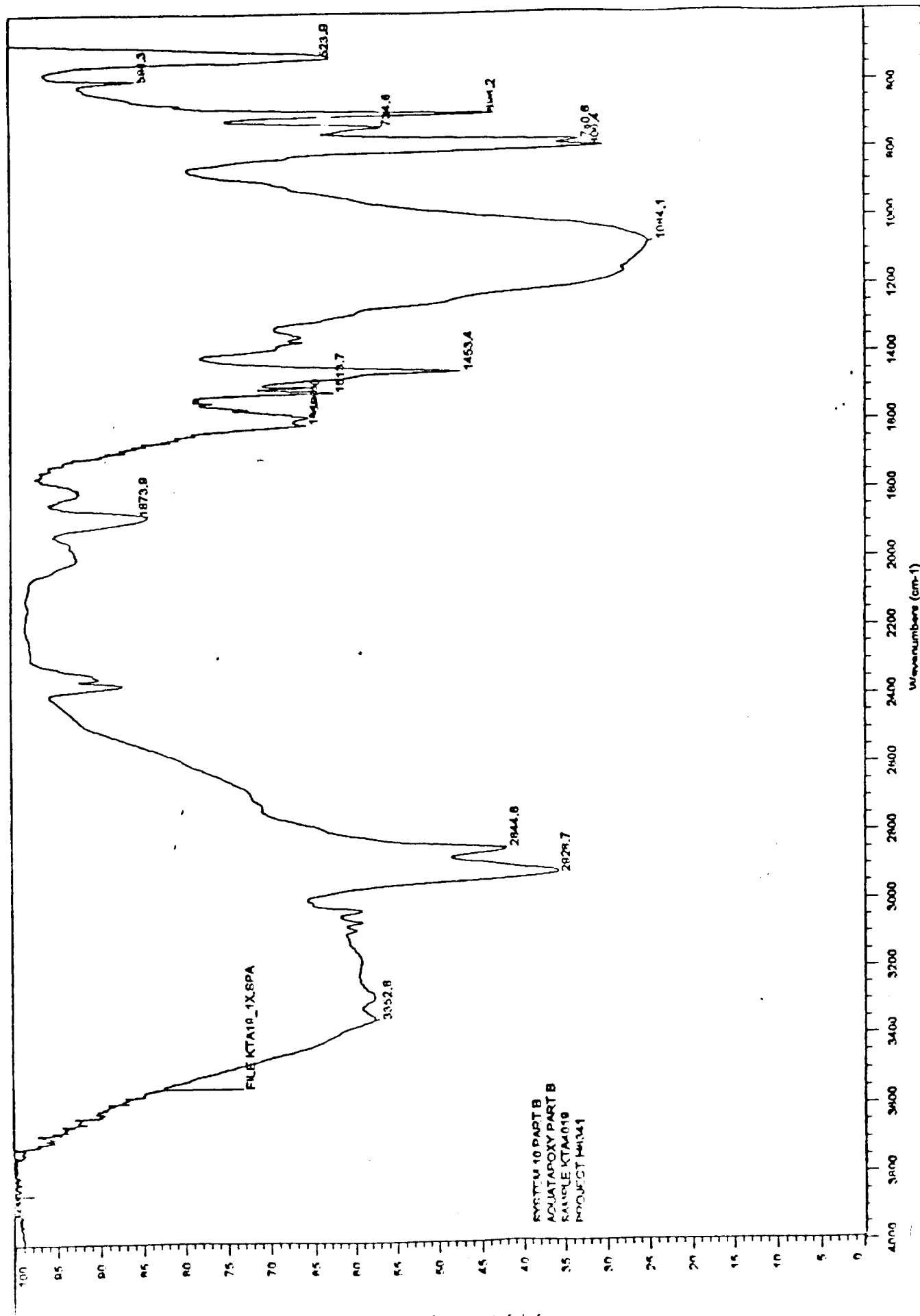
Number of points: 1868
X-axis: Wavenumbers (cm-1)
Y-axis: %Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTGS KBr
Accessory: 1
Sample splitter: KBr
Sample spacing: 2.0000

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Spectrum 33. System 10. Aquatapoxy Part B.



COLLECTION AND PROCESSING INFORMATION

Title: SYSTEM 10 PARAT B
Collected: Wed Sep 14 15:09:53 1994
File name: A:\KTA19_1.SPA
Comments: AQUATAPOXY PART B
SAMPLE KTA4019
PROJECT H6341

DATA COLLECTION INFORMATION

Number of sample scans: 32
Collection length: 22.6 sec
Resolution: 3.875
Levels of zero filling: 0
Number of scan points: 5408
Number of FFT points: 8192
Laser frequency: 15798.0 cm-1
Interferogram peak position: 984
Apodization: Happ-Genzel
Number of background scans: 32
Background gain: 2.0

DATA DESCRIPTION

Number of points: 1868
X-axis: Wavenumbers (cm-1)
Y-axis: Transmittance
First X value: 399.2414
Last X value: 4000.1284
Data spacing: 1.928702

SPECTROMETER DESCRIPTION

Spectrometer: Impact 400
Source: IR
Detector: DTGS KBr
Accessory: 1
Beamsplitter: KBr
Sample spacing: 0.0000

Mirror velocity: 0.6329
Aperture: 1.00
Sample gain: 4.0
High pass filter: 200.0000
Low pass filter: 90000.0000

DATA PROCESSING HISTORY

Collect Sample
Background collected on Wed Sep 14 15:18:02 1994
Final format: %Transmittance
Resolution: 3.875 from 399.2414 to 4000.1284

Baseline Correct on Wed Sep 14 15:41:36 1994

Data format: Absorbance

Correction points: 42

0.4924 at 399.2414
-0.0978 at 405.2732
0.0095 at 435.4312
0.1824 at 483.6843
0.3971 at 519.8743
0.5282 at 568.1272
0.6176 at 628.4436
0.6236 at 694.7917
0.5998 at 773.2029
0.5461 at 797.3293
0.4686 at 893.8357
0.4626 at 954.1521
0.5163 at 1002.4050
0.5461 at 1068.7532
0.5401 at 1165.2593
0.5163 at 1201.4492
0.4447 at 1340.1768
0.4328 at 1412.5564
0.3195 at 1563.3474
0.2122 at 1708.1064
0.2003 at 1828.7393
0.2242 at 1979.5302

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0.2361 at 2136.3528
0.2361 at 2208.7324
0.2778 at 2395.7131
0.3195 at 2624.9153
0.3553 at 2715.3899
0.3911 at 2793.8013
0.4626 at 3101.4146
0.4328 at 3173.7942
0.4567 at 3234.1106
0.4746 at 3318.5535
0.4924 at 3396.9648
0.5163 at 3475.3760
0.5163 at 3553.7874
0.4924 at 3596.0088
0.4626 at 3662.3567
0.4567 at 3686.4834
0.4626 at 3734.7363
0.4805 at 3867.4324
0.4924 at 4000.1284
0.4924 at 4000.1284

Baseline Correct on Wed Sep 14 15:41:42 1994

Data format: Absorbance

Correction points: 42

0.4924 at 399.2414
-0.0078 at 405.2732
0.0095 at 435.4312
0.1824 at 483.6843
0.3971 at 519.8743
0.5282 at 568.1272
0.6176 at 628.4436
0.6236 at 694.7917
0.5999 at 773.2029
0.5461 at 797.3293
0.4696 at 893.8357
0.4626 at 954.1521
0.5163 at 1002.4050

(
(
0.5461 at 1068.7532
0.5401 at 1165.2593
0.5163 at 1201.4492
0.4447 at 1340.1768
0.4328 at 1412.5564
0.3195 at 1563.3474
0.2122 at 1708.1064
0.2003 at 1828.7393
0.2242 at 1979.5302
0.2361 at 2136.3528
0.2361 at 2208.7324
0.2778 at 2395.7131
0.3195 at 2624.9153
0.3553 at 2715.3899
0.3911 at 2793.8013
0.4626 at 3101.4146
0.4328 at 3173.7942
0.4567 at 3234.1106
0.4746 at 3318.5535
0.4924 at 3396.9648
0.5163 at 3475.3760
0.5163 at 3553.7874
0.4924 at 3596.0088
0.4626 at 3662.3567
0.4567 at 3686.4834
0.4626 at 3734.7363
0.4905 at 3867.4324
0.4924 at 4000.1284
0.4924 at 4000.1284

Baseline Correct on Sun Sep 25 20:17:02 1994

Data format: Absorbance

Correction points: 12

-0.0089 at 399.2414

0.0119 at 411.3047

-0.0208 at 779.2346

-0.0134 at 1110.9746